Exhibit S

CX-50 Gen2

ClickShare

Installation manual

BARCO_0053357

Product revision

Software Revision: 02.21.00

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Table of contents

1 Getting started

About this document

This installation manual is a guideline intended to aid in setting up and installing the CX-50 Gen2. For everyday use of the ClickShare system, refer to the user guide.

About getting started

Important safety and security reminders and tips will be explored in this chapter. This information is important to prevent damage or a loss of functionality.

Read this chapter in its entirety before starting the installation!

Clarification of the term "CX-50 Gen2" used in this document

When referring in this document to the term "CX-50 Gen2" means that the content is applicable for following Barco products:

- CX-50 Gen2

Model certification name

C5011S

Depending on the CX-50 Gen2 version, some graphics may look different than the ones used in this manual. This does not have any effect on the functionality that is described.

1.1 General guidelines for ClickShare

Overview

- Keep the Base Unit and Buttons up to date. Free updates will frequently be available for an optimal experience and to ensure the security of the overall system.
- Connect the Base Unit to the network (wired or wireless connection) for the optimal user experience. By doing so, both guests and employees can make use of the BYOD (Bring Your Own Device) services such as AirPlay, Google Cast and/or the ClickShare apps without disconnecting from the wireless network or losing internet connection.
- For high quality and low latency wireless conferencing, use a direct connection between the Button and the Base Unit.
- Place the Base Unit in an open emplacement and avoid installing it in a metallic shell.
- For an optimal user experience, both ClickShare and BYOD services have different implementations for presence and proximity detection. To take full advantage of these mechanisms, it is strongly advised to install the ClickShare Base Unit inside the meeting room, physically close to the display and not in a closed cabinet.
- Change the default passwords for optimal security.
- When connecting the Base Unit into the corporate network to enable BYOD protocols and the ClickShare apps to share, it is strongly advised to change the standby mode to “ECO standby”. If not, BYOD protocols, ClickShare apps and possibly the ClickShare Buttons will not be able to wake the Base Unit from standby.

1.2 Installation requirements

Ambient temperature conditions

Max. ambient temperature : +40°C or 104°F

Min. ambient temperature: +0°C or 32°F

Storage temperature: -10°C to +60°C (14°F to 140°F)

Humidity conditions

Storage: 0 to 90% relative humidity, non-condensing

Operation: 0 to 85% relative humidity, non-condensing

Environment condition check

For installations in environments where the ClickShare is subject to excessive dust, it is required to have this dust removed prior to it reaching the ClickShare's air intake. Devices or structures to extract or shield excessive dust away from the ClickShare are recommended. If this is not a feasible solution, then the ClickShare must be relocated to a clean air environment.

It is the customer's responsibility to ensure that the ClickShare is protected from the harmful effects of hostile airborne particles at all times. Barco reserves the right to refuse warranty or warranty exchange if a ClickShare has been subject to negligence, abandon or improper use.

The ClickShare product is intended to be used in office and indoor environments only.

Maximum allowed altitude to use the product : 3000m (9843Ft). Due to China regulation the maximum altitude is limited to 2000 meter (6561 feet) for China mainland.

1.3 Security recommendations

Keep the Base Unit and Button(s) up to date

Barco keeps improving their devices, this means extending existing features and adding new ones, but also providing security patches. Therefore, it is strongly recommended to keep the Base Unit up to date with the latest available firmware, and ensure Buttons are also updated. To simplify this, it is strongly recommended to connect them to the internet to get automatic updates.

To ensure and update of all Buttons, Barco strongly recommends pairing all Buttons with a Base Unit immediately after the Base Unit has been updated.

XMS Cloud

Manage Base Units through XMS Cloud management platform to receive updates.

XMS Cloud is Barco's secure cloud based solution for the configuration, remote management and real-time status monitoring of the devices, distributed over different locations. Enabling easy & automated (scheduling of) software updates, Base Unit configuration, creation of templates, remote wallpaper installation, user management and insights to drive the digital workplace.

Keep Base Units secured

Ensure that the Base Unit cannot be removed or replaced by securing the device appropriately. Barco recommends the use of the included kensington lock feature.

Change the default Wi-Fi password

Barco strongly recommends changing the default Wi-Fi password (only applicable when WPA2-PSK mode is used), this makes it more difficult for malicious people, without physical access to the devices, to intercept the traffic between the Base Unit and the Button.

Change the default configurator password

Barco strongly recommends changing the default configurator password. Anyone with malicious intentions who can access the Base Unit locally or via adjacent networks will definitely verify if the Base Unit's configurator can be accessed to extract valuable information like Wi-Fi credentials.

1.4 Network deployment requirements

About requirements

Certain ports and communication protocols must be opened or allowed through the enterprise firewall. These ports are required for ClickShare to communicate and function efficiently.

Required ports

Contact the local IT responsible to open the following required ports:

Sender/receiver	Protocol	Ports
ClickShare Button (wireless presentation)	TCP	2345; 6544
ClickShare desktop and mobile app (wireless presentation)	TCP	6541 - 6545
	UDP	5353; 1900
Wireless conferencing	TCP	1235; 9999
	UDP	1234
AirPlay	TCP	4100 - 4200; 700; 7100; 47000
	UDP	4100 - 4200; 5353
Google Cast	TCP	8008; 8009; 9080
	UDP	1900; 5353; 32768; 61000
ClickShare configurator	TCP	80; 443
XMS Cloud	TCP	443
XMS Edge	TCP	4003
Auto-update	TCP	80; 443
SNMP	UDP	161; 162
REST API	TCP	4003

Required firewall rules

Add the following rules to the firewall:

- **XMS Cloud**, outbound TCP port 443 to:
  - xms.cloud.barco.com
  - *.azure-devices.net
  - *.core.windows.net
  - global.azure-devicesprovisioning.net
- **Auto-update**, outbound TCP port 443 to:
  - update.cmp.barco.com
  - assets.cloud.barco.com
- **MyBarco portal**, outbound TCP port 443 to:
  - *.barco.com

CX-50 Gen2 introduction

2

About introduction

Details about the product will be explored in this chapter. It will also establish some common terminology required to follow the rest of the manual effectively.

Regional variants

Depending on the purchase location, the Base Unit and accessories are regionalized.

The CX-50 Gen2 is region locked, meaning that it cannot be used outside its original region!

2.1 The CX-50 Gen2

What is the CX-50 Gen2

The CX-50 Gen2 is referred to as “Base Unit” throughout the manual.

The CX-50 Gen2 Base Unit controls and enables the ClickShare functionality. The Base Unit can also work as an intermediary for room camera’s, speakers, microphones, or other peripherals.

CX-50 Gen2 is only compatible with generation 4 Buttons! For more information, see “The conferencing Button”, page 16.

CX-50 Gen2 components

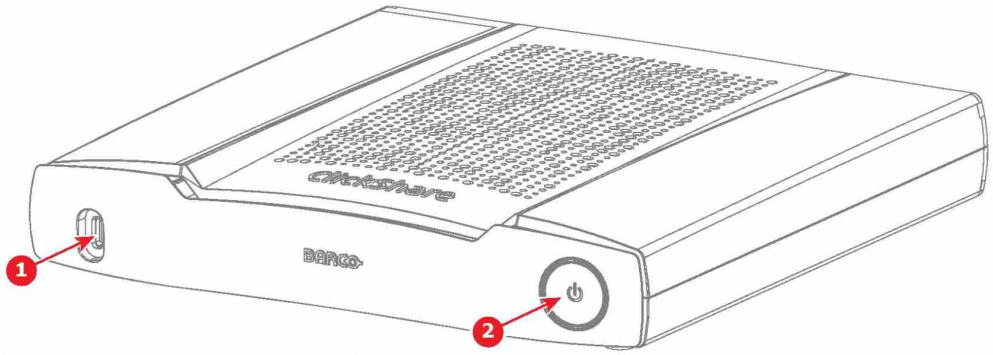

Image 2–1 Front view of the CX-50 Gen2

1 Front USB-C™ port
2 Power button

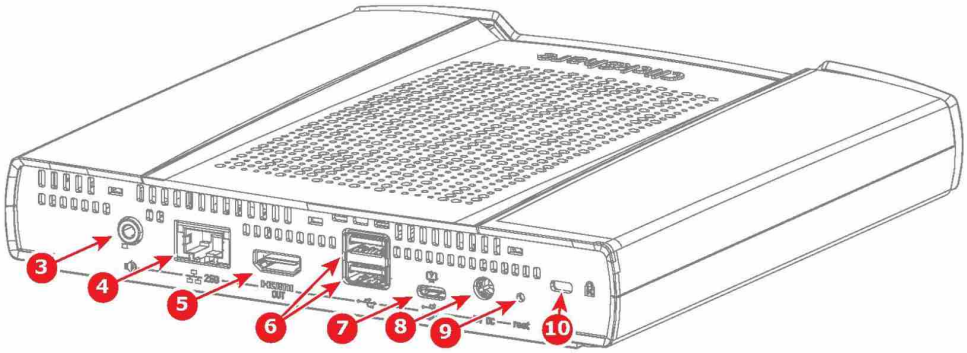

Image 2–2 Back view of the CX-50 Gen2

3 Audio output port
4 LAN port
5 HDMI™ out port
6 USB-A ports
7 Back USB-C™ port
8 Power adapter port
9 Reset button
10 Kensington™ lock

LED ring

There is an LED ring at the front of the Base Unit that clearly communicates what the current status of the ClickShare and its peripherals are.

See the following table to know what each color or color animation stands for:

LED status	Meaning
Static white	Idle Pairing completed
Blinking white	Booting Pairing in progress Software update
Breathing white	ECO standby
Static red	Sharing
Blinking red	Error Rebooting
Off	Deep sleep

2.2 The conferencing Button

What is a conferencing Button

The conferencing Button will be referred to as “Button” throughout the manual.

The conferencing Button is a small USB powered wireless device that simplifies sharing and using ClickShare to a single press of a button.

Generation 4 Button overview

A generation 4 Button is easily identified by its USB-C™ connector to pair with Base Unit(s) and connect with devices.

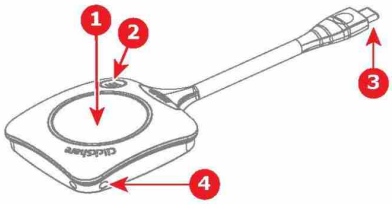

Image 2–3 Generation 4 Button

1 Share button
2 ClickShare menu button
3 USB-C™ connector
4 Strap holes

Button functionality

Pressing the buttons can have different effects. It also allows for interaction and seamless switching between multiple presenters.

See table below for more information:

Action	Function
Short press on share button	Starts sharing
Long press on share button	Takes over sharing
Press the menu button	Brings up the ClickShare app

Button LED ring

There is an LED ring around the share button. The color or animation of this ring helps signal what the Button is currently doing and what state it is.

See table below for the possible colors or animations and their meaning:

LED	Meaning
White fill	Setting up the connection
Steady white	Connected and ready to be used
Blinking white	Unable to connect ClickShare app not running
Fast white spinning	Device busy Device processing
Purple	Hostflow without sharing
Purple - red spinning	Hostflow with sharing

LED	Meaning
Steady red	Sharing
Blinking red	Error

3 Installation process

About the installation process

A general checklist and high level overview of how a typical installation is completed. For more details about specifics and possibilities, follow the links to the topics.

3.1 Installation overview

1. Define or prepare an optimal location in the meeting room. For more information, see “Methods of installing”, page 21.
2. Physically install the Base Unit in the chosen location. For more information, see “Physical installation”, page 24
3. Connect the Base Unit with required cables or by setting up the required wireless connections. Depending on the meeting room different connections may be needed. For more information, see “Hardware connections”, page 25
4. Update the firmware of the Base Unit to the latest version. For more information, see “Firmware update”, page 32.
5. Pair the optional Button(s) to the Base Unit. For more information, see “Pairing the Button(s)”, page 33
6. Log into and initialize the ClickShare configurator. For more information, see “The ClickShare configuration wizard”, page 38

   OR

   Start a meeting, without setup, by sharing content immediately. For more information, see “Quick use”, page 36
7. Register the Base Unit in XMS Cloud and claim 5 year SmartCare warranty. For more information, see “XMS Cloud registration”, page 44
8. Modify or utilize the Base Unit advanced features with ClickShare configurator. For more information, see “ClickShare configurator”, page 51
9. Start using ClickShare, by connecting a paired button and/or installing the ClickShare app. For more information, refer to the user guide.

3.2 Methods of installing

Possible physical configurations

The Base Unit can be installed in multiple configurations:

WARNING: Do not install the CX-50 Gen2 upside down!

- Standing on a flat surface. For more information, see "Install standing", page 24.
- Mounted to a wall. For more information, see "Wall mounting", page 24.

For an optimal experience during use, keep the following in mind when choosing a location to install the Base Unit:

- Install the Base Unit near to the display.
- **Do not** install the Base Unit in a metal enclosure!
- **Do not** mount the Base Unit on the ceiling!

If accessibility of the connector side will be limited due to mounting, then connect the required cables to the Base Unit first. For more information, see "Hardware connections", page 25.

Possible network configurations

Depending on the type of meeting room, how the local network is setup or requirements that are needed, different methods of integrating ClickShare into the network can be preferred. The possible methods are:

The CX-50 Gen2 has two Wi-Fi network chips that can be configured independently.

Device	Configuration	Details	Setting
Base Unit	Standard	LAN connection to the enterprise network (**optional**): • XMS Cloud access. • App based sharing for users connected to the enterprise network.	"LAN settings", page 70.
	Dual network	LAN connection to the enterprise network: • XMS Cloud access. • App based sharing for users connected to the enterprise network.	"LAN settings", page 70.
		Wi-Fi connection to the guest network: • App based sharing for users connected to the guest network.	Base Unit wireless client mode: "Wi-Fi settings", page 67.
	AV VLAN	LAN connection to the AV VLAN network: • XMS Cloud access. • App based sharing for users connected to the enterprise and guest network.	"LAN settings", page 70.
Button	Standard	Button connects to the Base Unit Wi-Fi network.	Base Unit in access point mode: "Wi-Fi settings", page 67.
			Button in ClickShare name mode: "Connection", page 84.

Device	Configuration	Details	Setting
	Network connected	Button connects to the network.	Base Unit must be connected to the same network as the Button(s) or the AV VLAN: “LAN settings”, page 70 or “Wi-Fi settings”, page 67.
			Button in external access point mode: “Connection”, page 84.

Installing CX-50 Gen2

4

About installation

All the varying ways of physically installing and connecting Base Unit and its optional Button (s) will be explored in this chapter.

4.1 Physical installation

4.1.1 Install standing

1. Prepare a flat and continuous surface with sufficient space and height for the entire Base Unit.
2. Place the Base Unit in its upright position on the desired flat surface.

4.1.2 Wall mounting

About wall mounting

No additional mounting bracket is needed to attach the Base Unit to a wall. The Base Unit can be mounted in any orientation against the wall.

The Base Unit weighs: **985g**.

DANGER: Ensure that the surface is clean, dry and not flexible before attaching the Base Unit!

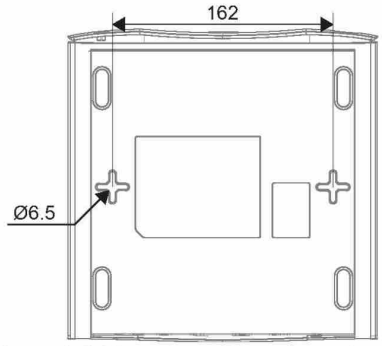

Image 4–1 Dimensions of the wall mount

Required tools

- a drill (type of drill depends on the type of wall)
- Screwdriver (depending on the used screws)

Required parts

- 2 mounting screws, maximum head diameter of 6.5mm
- 2 plugs

How to install

1. Drill two holes 162mm horizontally spaced into the wall.
2. Insert a plug into each hole. (**optional**)
3. Partially insert a screw in each plug or hole.

   Note: Mounting screws and plugs are not included with the Base Unit. The type of screws and plugs depend on the wall material i.e. stone, wood, plasterboard, ...
   Ensure that the head of the screw is not larger than the hole in the bottom plate of the Base Unit (**< 6.5mm**).

4. Hook the Base Unit on both screw heads and slide the Base Unit downwards until it is fixed.

4.2 Hardware connections

4.2.1 Connecting the power

About powering the Base Unit

There are two ways to power the Base Unit:

- With the included adapter.
- Through a display that supports USB-C power delivery of at least **65W**.

When both options are connected the adapter will take priority in charging the Base Unit.

Powering with adapter

1. Connect the adapter to the power port of the Base Unit. (reference 1)

   Warning: Only use the certified Barco adapter that was included in the box or provided as spare, using a different adapter may cause severe damage!

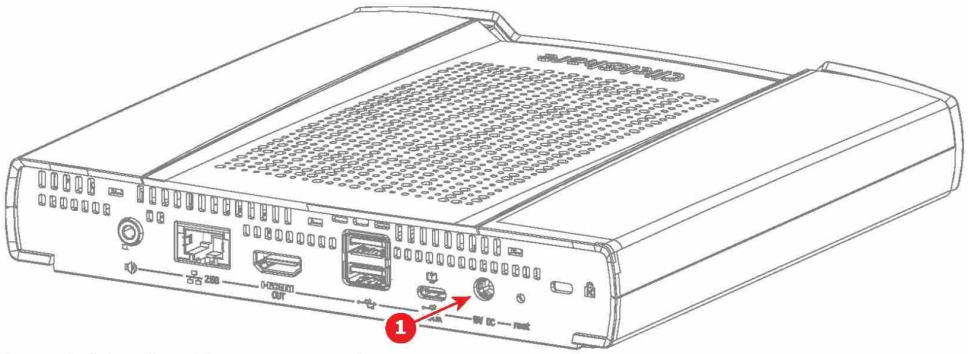

Image 4–2 Location of the power connector

1 Connection for the power adapter

2. Plug the adapter into a wall socket.

   When power is sufficiently provided to the Base Unit, the ring at the front will light up.

Powering over USB-C display

1. Connect a “USB-C” cable to the “USB-C” port at the back of the Base Unit. (reference 1)

   Note: It is possible to use this connection to both charge the Base Unit and display image on the connected screen.

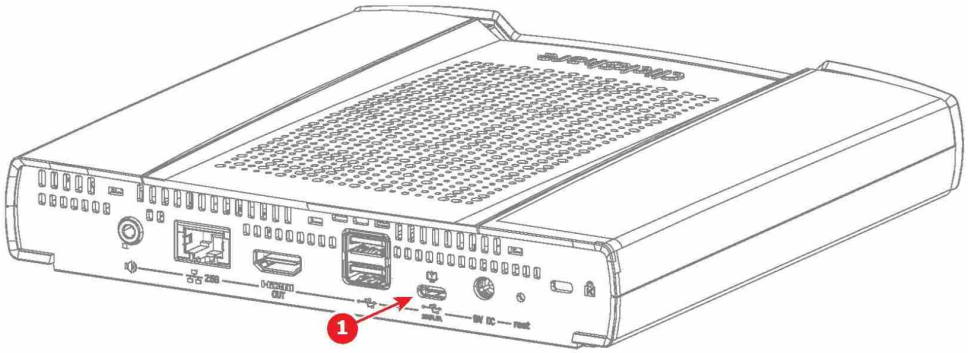

Image 4–3 Location of the USB-C connector

1 Connection for the USB-C cable

2. Connect the “USB-C” cable to the “USB-C” port on the display.

   When power is sufficiently provided to the Base Unit, the ring at the front will light up.

4.2.2 Display connections

About display connections

There are two ways to connect a display to the Base Unit:

- HDMI
- USB-C
  - Using a USB-C cable.
  - Using a USB-C to HDMI dongle.

To connect two displays, both the HDMI and USB-C connections must be made.

Only one of the connected displays can be used as touch display!

HDMI connection

1. Connect an “HDMI” cable from the “HDMI out” port of the Base Unit to the “HDMI in” port of the display. (reference 1)

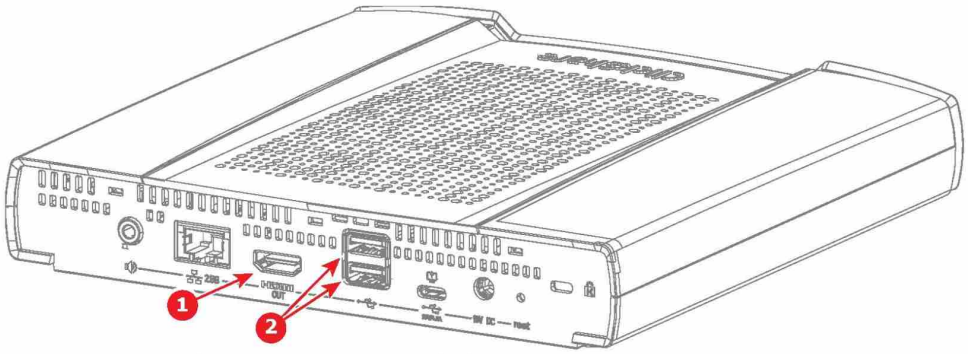

Image 4–4 Location of the HDMI connector and USB-A connector for touch screens only

1 Connection for the HDMI cable
2 Connection options for the touch screen USB-A cable

When the display is correctly configured, the ClickShare setup splash screen will be displayed on the monitor.

2. Is the display a touch screen?
   - ► **Yes**, connect a “USB-A” cable to one of the “USB-A” ports of the Base Unit. (reference 2, Image 4–4)
   - ► **No**, the HDMI connection has been made.

USB-C connection

1. Connect a display to the “USB-C” port at the back of the Base Unit with a “USB-C” cable or “USB-C to HDMI” dongle. (reference 1)

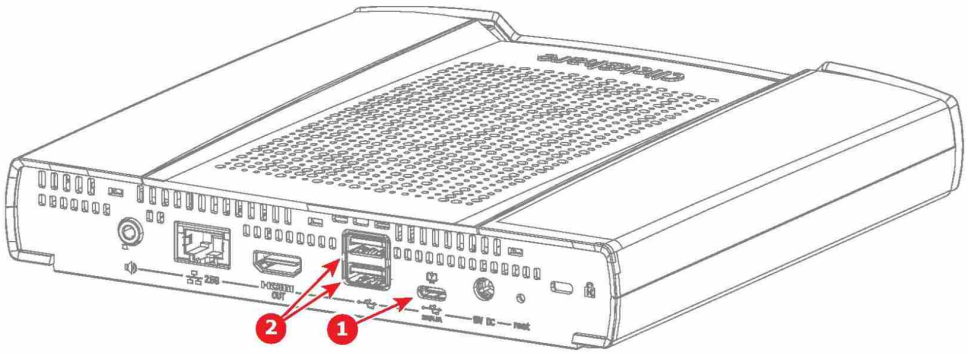

Image 4–5 Location of the USB-C cable or dongle connector and USB-A connector for touch screens only

1 Connection for the USB-C cable or USB-C to HDMI dongle
2 Connection options for the touch screen USB-A cable

When the display is correctly configured, the ClickShare setup splash screen will be displayed on the monitor.

2. Is the display a touch screen?
   - ► **Yes** and the touch functionality is **supported** via the “USB-C” connection.
   - ► **Yes** and the touch functionality is **not supported** via the “USB-C” connection, connect a “USB-A” cable to the “USB-A” port of the Base Unit. (reference 2, Image 4–5)
   - ► **No**, the USB-C connection has been made.

4.2.3 Wired video input

Peripherals cannot be used while in wired video input mode!

HDMI connection

1. Does the computer support video signals over USB-C?
   - ► If **yes**, connect a “USB-C” cable from the “USB-C” port of the computer to the “USB-C” port of the **front** Base Unit. (reference 1)
   - ► If **no**, connect a computer to the **front** ”USB-C” port of the Base Unit with a “USB-C to HDMI” dongle. (reference 1)

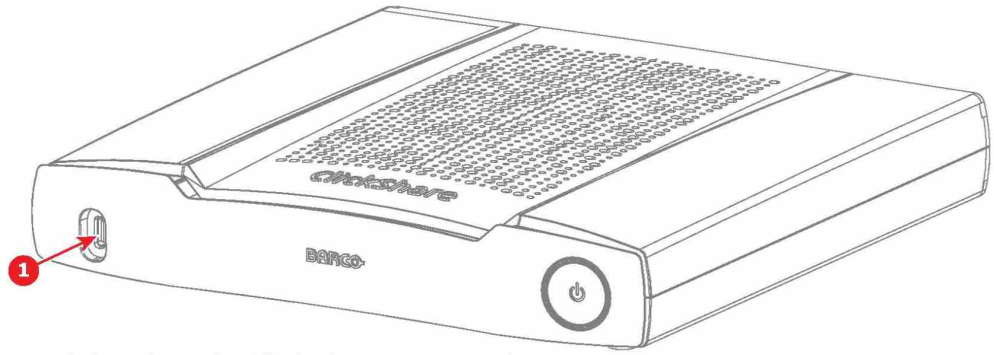

Image 4–6 Location for the USB-C cable or dongle connector

1 Connection for the USB-C cable or USB-C to HDMI dongle

2. Manage the video input in the ClickShare configurator. For more information, see “Inputs”, page 64

4.2.4 Standalone peripherals

About peripherals

ClickShare can interface and connect with multiple types and brands of peripherals. A list of officially supported peripherals can be found here: *https://www. barco. com/en/products/clickshare-conferencing-collaboration/alliance-partners/peripherals*.

How to connect

1. Which connection is required for the peripheral?
   - **AUX** connection, connect the AUX cable to the “AUX” port. (reference 1)
   - **USB** connection, connect the USB cable to one of the two “USB-A” ports. (reference 2)

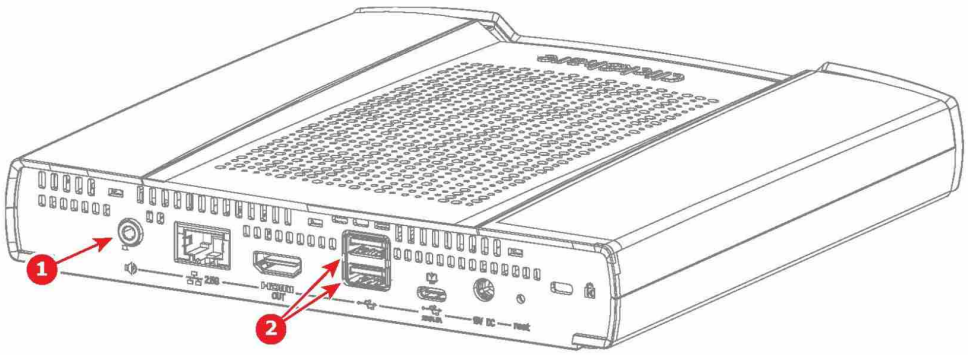

Image 4–7 Location of the peripheral connectors

1 Connection for the AUX cable
2 Connection options for the USB-A cables

4.2.5 Collaboration bar

About collaboration bar

ClickShare can be used to seamlessly integrate supported collaboration bars.

How to connect

1. Connect the collaboration bar to the back ports of the ClickShare.
   a) Connect an “HDMI” cable from the “HDMI out” port of the ClickShare to the “HDMI in” port of the collaboration bar (reference 1).
   b) Connect a “USB” cable from the “USB-A” port of the ClickShare to the dedicated “USB” port of the collaboration bar (reference 2).

Note: Dual screen setups requires additional switching hardware.
Plugging a secondary display into the front “USB-C” port directly is not supported!

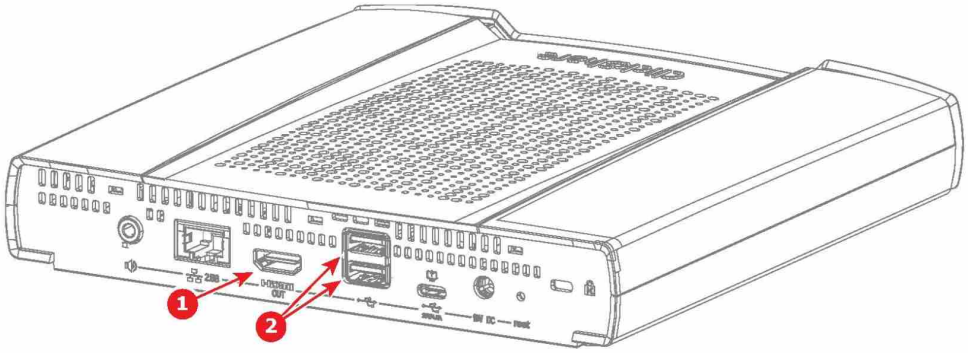

Image 4–8 Location to connect the collaboration bar

1 Connection for the HDMI cable to the collaboration bar
2 Connection options for the USB cable to the collaboration bar

2. Connect an ”HDMI” cable from the “HDMI out” port of the collaboration bar to the “HDMI in” port of the primary display
3. Enable collaboration bar in the ClickShare configurator. For more information, see “Peripherals”, page 64

4.2.6 Modular setup

About modular setup

If the meeting room is equipped with a modular room controller, then ClickShare can be integrated with the modular setup. Allowing the ClickShare sharing and conferencing to make use of all the available room features.

It is not possible to pair new Buttons while in Modular setup mode with the Base Unit in room system mode!

How to connect

1. Make the connections at the back of the CX-50 Gen2.
   a) Connect an “HDMI” cable from the “HDMI out” port of the ClickShare to the “HDMI in” port of the room controller (reference 1).
   b) Connect a “USB” cable from the “USB-A” or “USB-C” port at the **back** of the ClickShare to the external peripherals (reference 2).

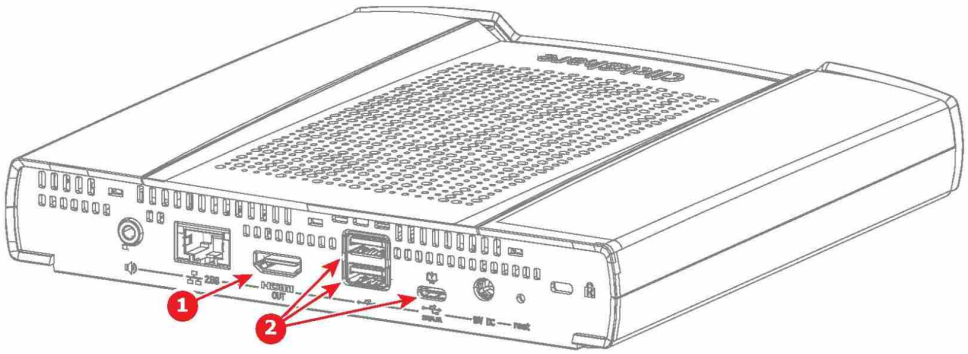

Image 4–9 Locations of the back side connections

1 Connection for the room controller
2 Connection options for the peripherals

2. Connect a “USB-A to USB-C” cable from the “USB-C” port at the **front** of the ClickShare to the “USB-A” of the room pc (reference 3).

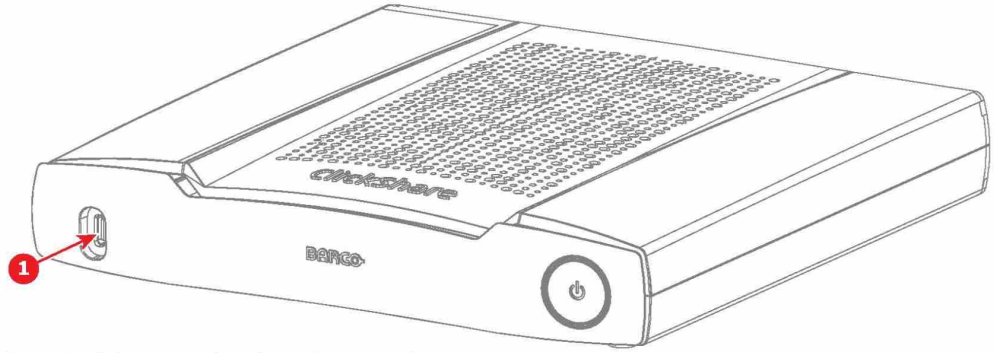

Image 4–10 Locations of the front side connections

1 Connection for the room pc

3. Enable modular room in the ClickShare configurator. For more information, see “Peripherals”, page 64

4.2.7 Wired roomdock

About wired roomdock

Wired roomdock enables the sharing of content in high resolution and frame rate over a wired connection. Any connected peripherals are controllable through the USB connection.

Wireless sharing is disabled while the Base Unit is in wired roomdock.

How to connect

1. Does the computer support display port alternate mode?
   - ► **If yes**, connect a “USB-C” cable from the **front** “USB-C” port of the Base Unit (reference 1) to a “USB-C” port of the computer that supports displayport alternate.
   - ► **If no**, connect a “USB-C to HDMI” dongle from the **front** “USB-C” port of the Base Unit (reference 1) to an “HDMI-out” and “USB-C” port of the computer.

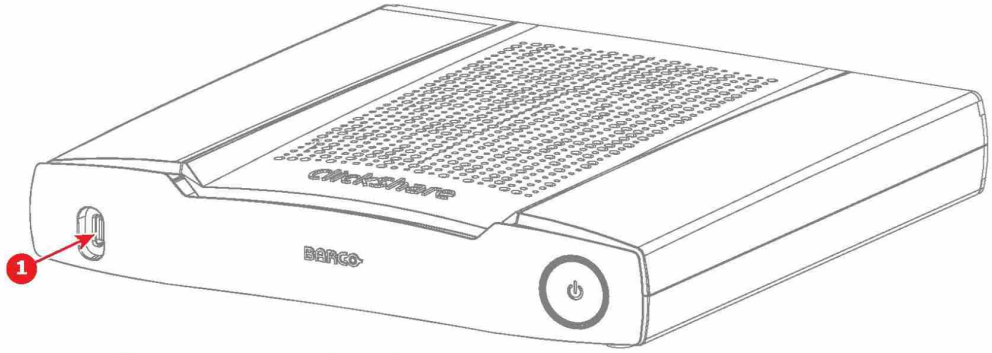

Image 4–11 Wired roomdock connection location

1 Connection for wired roomdock

2. Enable wired roomdock in the ClickShare configurator. For more information, see “Inputs”, page 64

4.2.8 Connecting over LAN

About LAN connection

Connecting the CX-50 Gen2 to the LAN, allows for the configuration and management of the Base Unit remotely.

How to connect

1. Connect an “ethernet” cable from the LAN to the “ethernet” port at the back of the Base Unit. (reference 1)

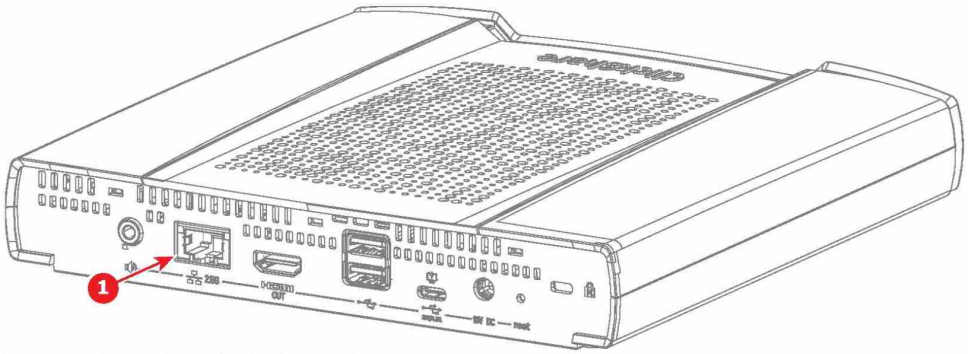

Image 4–12 Location of the LAN connector

1 Connection for the LAN cable

2. Find the IP address that was assigned to the Base Unit by the network.
3. Navigate to the IP address with a browser of choice.

Note: Depending on the configuration of the browser, a security warning could be displayed. To prevent this warning in the future, see "HTTP encryption", page 78.

4. To initialize the configurator see "The ClickShare configuration wizard", page 38

4.2.9 Connecting over Wi-Fi

About Wi-Fi connection

By default a Wi-Fi network will be setup by the Base Unit from the moment it has booted up. It is possible to connect to this network to configure or use ClickShare.

How to connect

1. Ensure the Base Unit is powered on, for more info see "Connecting the power", page 25
2. Connect the wireless device to the SSID and enter the password.

   The default SSID is "ClickShare-[serial number]" and the default password is "clickshare"
3. Navigate to the IP address of the Base Unit with a browser of choice.

   Note: The default IP address is"*192.168.2.1*".

   Note: Depending on the configuration of the browser, a security warning could be displayed. To prevent this warning in the future, see "HTTP encryption", page 78.
4. To initialize the configurator see "The ClickShare configuration wizard", page 38

4.3 Firmware update

It is recommended to update the Base Unit to the latest firmware before configuring the ClickShare system. This ensure the latest features are present in the configurator.

About Firmware updates

There are multiple different ways to update the Base Unit software:

- **XMS Cloud**:
  For more information, refer to the XMS Cloud user guide: *https://www.barco.com/support*.
- **ClickShare configurator**:
  For more information, see "The ClickShare configuration wizard", page 38 or "Firmware Update", page 88.
- **Manual update**:
  With an upgrade USB stick, see the following instructions.

How to update using a USB stick

1. Download the latest firmware from the product support page on the Barco website: *https://www.barco.com/clicksharesetup*.

   Tip: Store the downloaded ".zip" file in an easy to access location.

2. Extract the ".zip" file.
3. Copy the ".enc" file to the **root** of the USB stick.

   Tip: It is possible to have the same firmware version upgrade files for other Base Unit(s) on the USB stick.

4. Insert the USB stick into any free USB port of the Base Unit.

   A notice will be shown on the connected display indicating that the firmware is being updated.

5. Wait until the notice indicates that the process has been completed and remove the USB stick.

   The Base Unit will reboot automatically.

4.4 Pairing the Button(s)

About the Button

Button(s) must be paired with a Base Unit before they will work. An unpaired Button will not be able to share content nor connect to any display.

It is not possible to pair a Button with multiple Base Units!
Pairing a Button to a different Base Unit causes the Button to lose its connection with the originally linked Base Unit.

How to pair

1. Ensure the Base Unit is powered on.
2. Connect the Button to an available “USB-C” port of the Base Unit.

   Note: Only Buttons of generation 4.0 or higher are compatible with CX-50 Gen2!

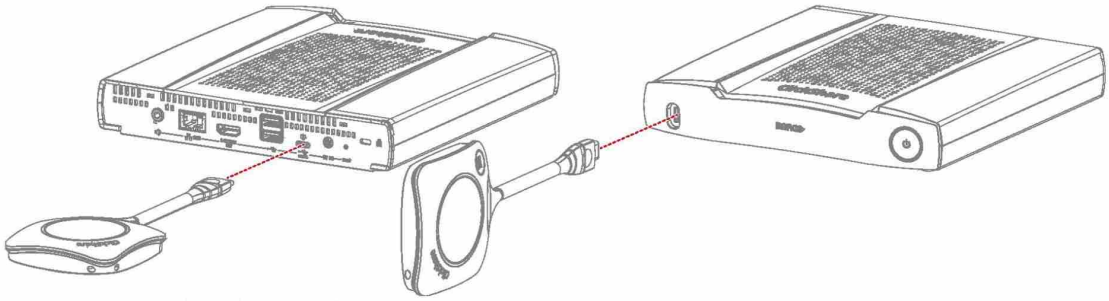

Image 4–13 Two methods to pair a Button

If a display is attached a notice “Busy pairing and updating” will appear at the bottom of the splash screen.

3. Wait until the circle of the Button turns solid green

   If a display is attached a notice “Finished pairing and updating Button.” will appear at the bottom of the screen.

4. Unplug the Button from the Base Unit.

   The Button is now ready to be used!

First time use 5

About first time use

When powering on the Base Unit with a display attached, a landing page will be shown. This landing page will refer to the three possible methods explained in this chapter:

- **Quick use**: no configuration required (**not recommended**).
- **Configurator wizard**: initialize and setup the configurator.
- **XMS Cloud**: register the ClickShare and claim 5 year SmartCare warranty.

5.1 Quick use

About quick use

Use the Base Unit without going through the full setup process. This can be useful for an urgent meeting that must take place immediately or if some basic testing/demo is needed.

All advanced features are not available while using the Base Unit in this state. However, the built-in camera, speakers and microphone can be used in their default configuration.

It is not advised to use the Base Unit without configuration for extended periods of time!

Quick share with Button

1. Pair a Button by following: "Pairing the Button(s)", page 33
2. Plug the paired Button into the device that will be sharing or joining the meeting.
3. After the LED ring is stable white, press the central button of the Button to start sharing.

Quick share with ClickShare app

1. Download and install the ClickShare app: *https://www.clickshare.app*

   Windows will install the correct drivers automatically in most cases, else download the latest driver manually here: *https://www.barco.com/en/support/software/R3307452*
2. Run the installed ClickShare app.
3. Select the desired meeting room in the ClickShare app.

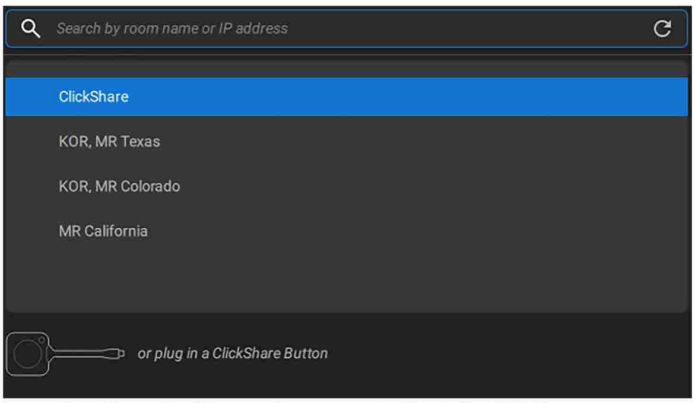

Image 5–1 Example of the meeting room selection in the ClickShare app

Note: Without configuration, the meeting room will be called "*ClickShare-[serial number]*"

For more information about the ClickShare app, refer to the user guide.

4. Enter the passcode that is shown on the display

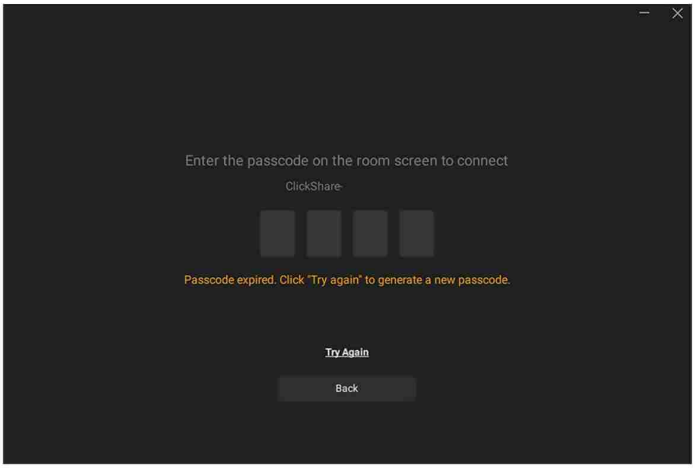

Image 5–2 Example of passcode prompt in the app

If the passcode disappeared too quickly, click “Try Again” in the app.

5. Select the desired screen or window and start sharing.

5.2 The ClickShare configuration wizard

About the configurator

The configurator is the internal web application that controls the settings and general setup of the connected ClickShare. Allowing for the modification and (de)activation of the various ClickShare features.

These settings can be modified after the setup has been completed!

Initial setup of the configurator

1. Connect to the Base Unit:
   - Through a direct LAN connection.
   - By navigating to its wired IP address. For more information, see "Connecting over LAN", page 30
   - By connecting to its Wi-Fi network. For more information, see "Connecting over Wi-Fi", page 31
2. Navigate to the configuration page through a browser of choice.

   Note: The default IP address of the configurator is: "192.168.2.1".

   Note: Depending on the configuration of the browser, a security warning could be displayed. To prevent this warning in the future, see "HTTP encryption", page 78.

   The ClickShare configurator login page is shown.
3. Log into the configurator.

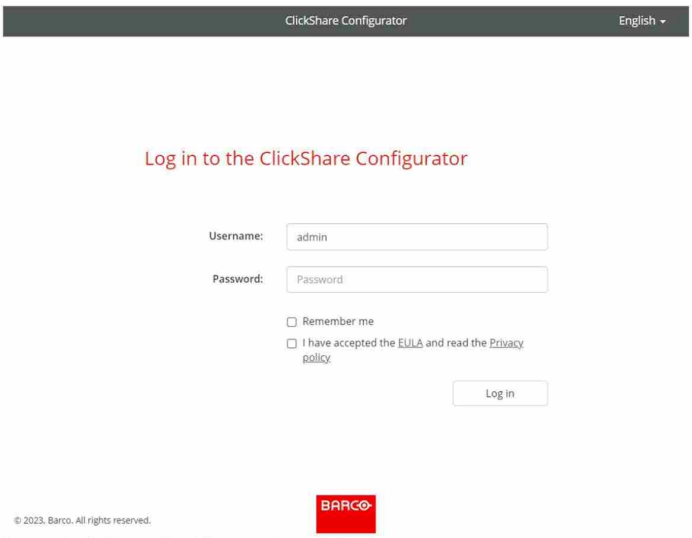

Image 5–3 Example of the configurator login page

   a) Select a desired display language at the top right.
   b) Enter the username and password.

      Note: The default username and password are both "admin".

   c) Have the configurator remember the entered username and password by checking the checkbox in front of remember me. (**optional**)
   d) **Read** the linked EULA and Privacy policy, then click the checkbox in front to accept the terms.

   The ClickShare configuration wizard will be shown
4. Click "Start configuration".

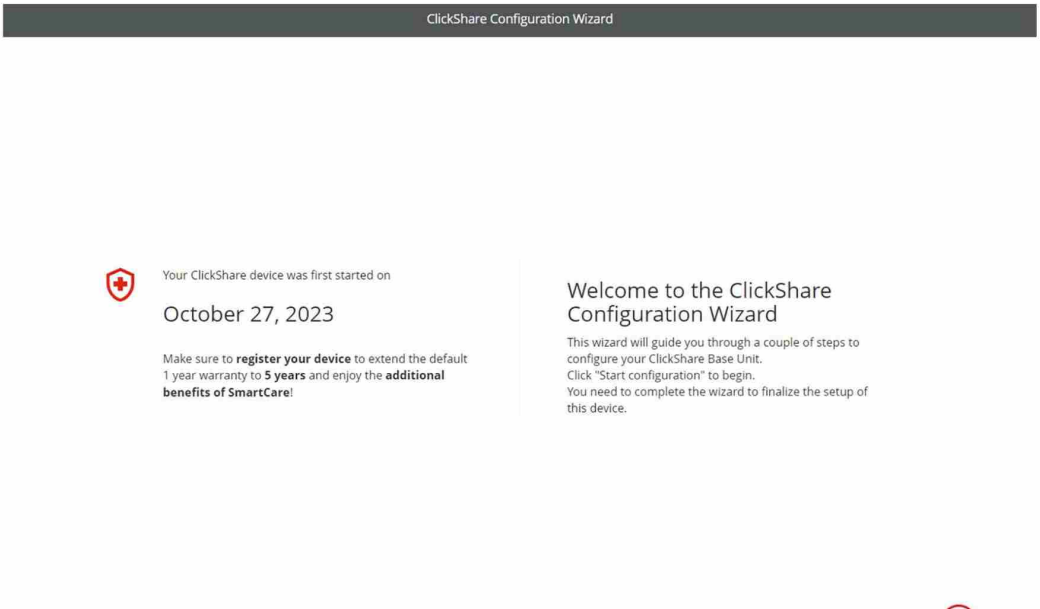

Image 5–4 Example of the landing page of the configurator wizard

The “Firmware update” page will be shown.

5. Decide how firmware must be delivered and click “**next**”:
   - **Automatic**, keeps the Base Unit up to date. (**recommended**)
   - **Notify**, sets a notice on the homepage of the configurator when an update is available.
   - **Off**, never checks for updates.

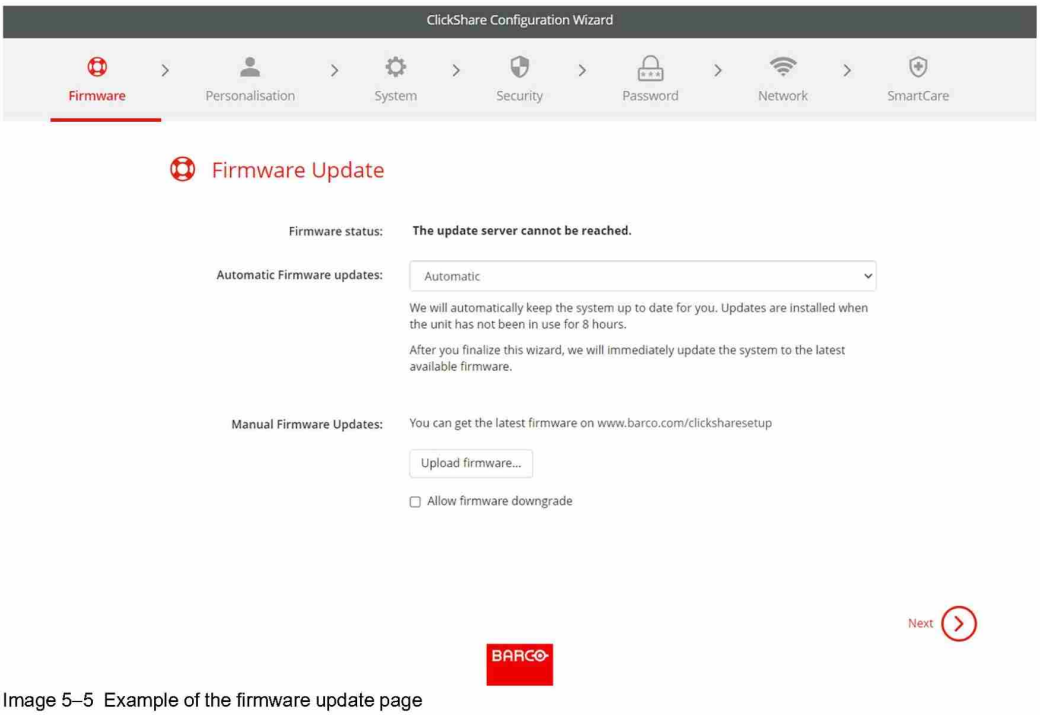

Image 5–5 Example of the firmware update page

It is possible to update the firmware by clicking “Upload firmware” and selecting the “.enc” file downloaded from https://www.barco.com/clicksharesetup.

Note: ClickShare protects itself by preventing older versions of firmware from being installed. If a downgrade is absolutely necessary, check the checkbox in front of “allow firmware downgrade”.

6. Personalize the name, location and customize the on-screen text and its language and click “**next**”.

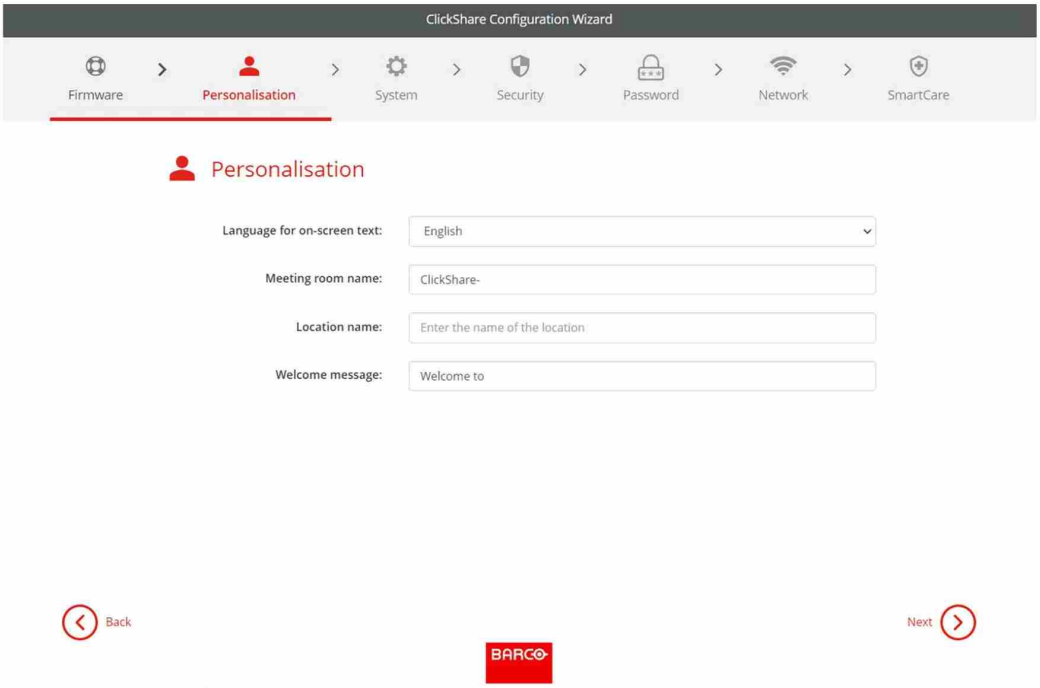

Image 5–6 Example of the personalisation page

Tip: It is recommended to rename the “meeting room name” and the “location name” to the name and location of the meeting room itself.

7. Select the time zone that is most relevant for the usage of the Base Unit.

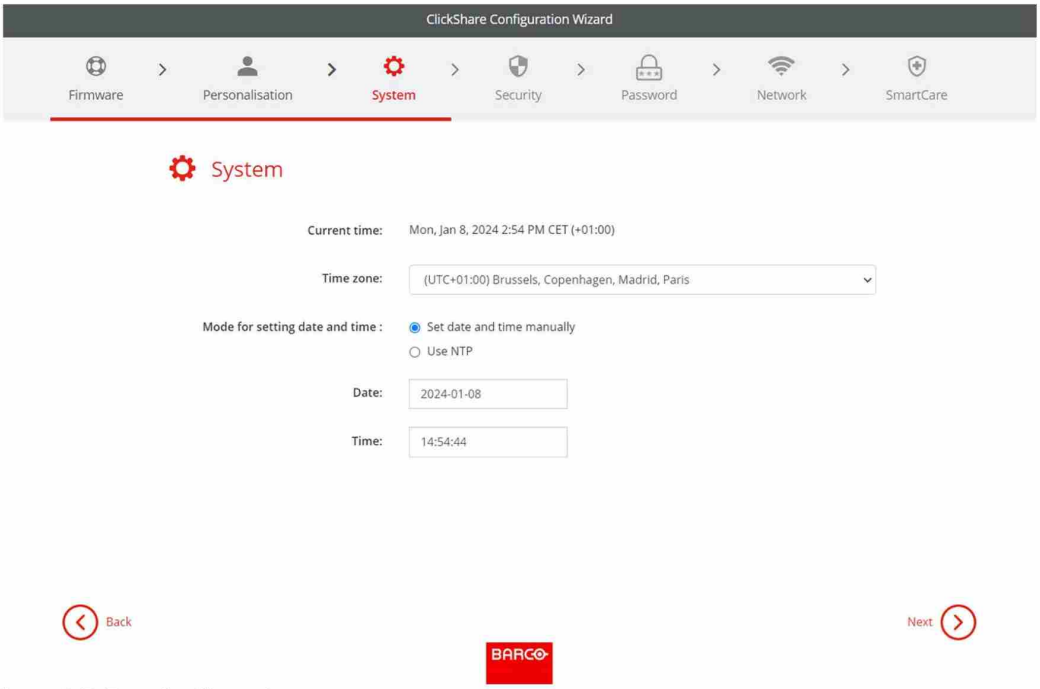

Image 5–7 Example of the system page

8. Choose the mode for the date and time and click “**next**”:
   - **Manually**, allows the option to change the starting day and starting time of the Base Unit.
   - **NTP**, follows the clock of the time server(s) that are defined in the input field.
9. Choose the most applicable security level and click “**next**”.

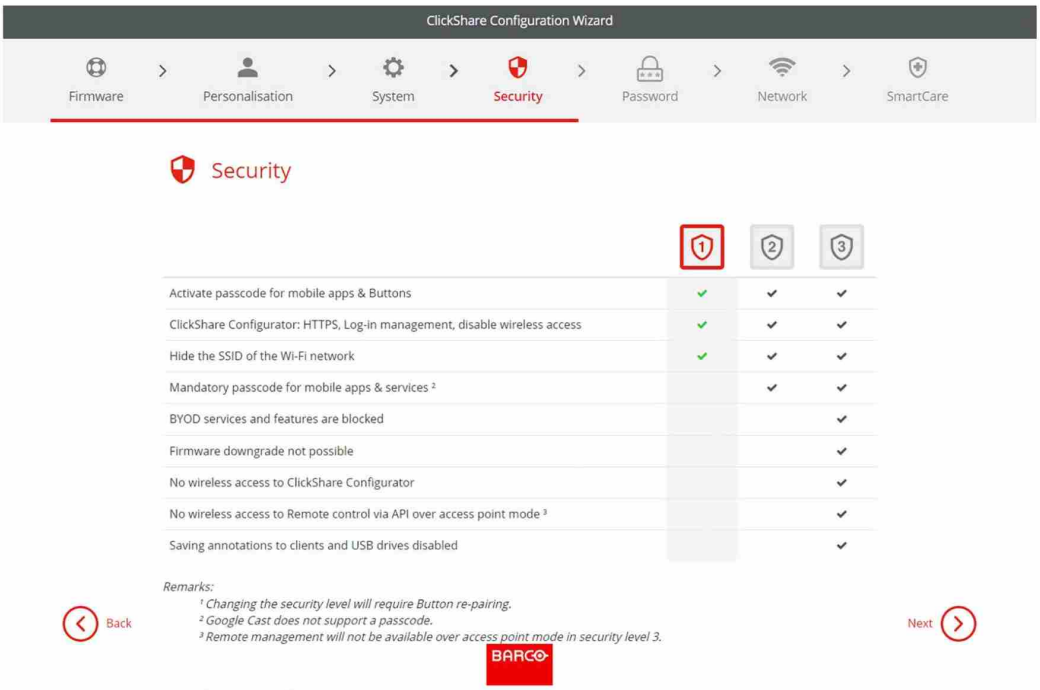

Image 5–8 Example of the security page

10. Change the password to a more secure password and click “**next**”.

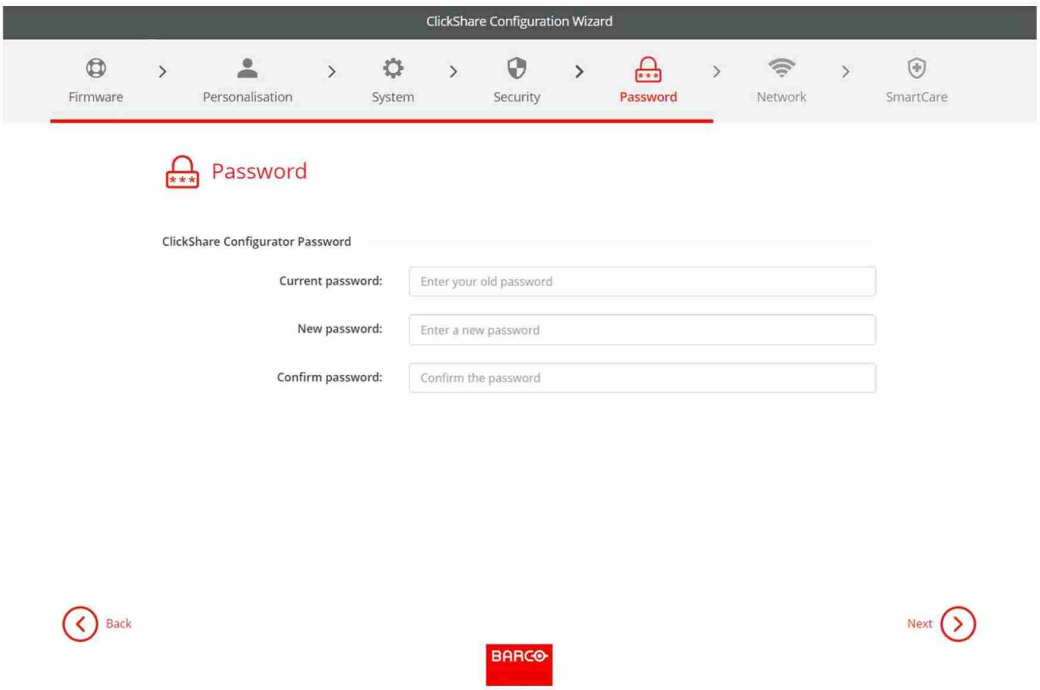

Image 5–9 Example of the password page

Tip: There are no required criteria for creating the password. In general the longer the password the more secure.

11. Configure the network settings to minimize interference of other wireless signals and maximize the security of the Base Units own Wi-Fi network and click "**next**".

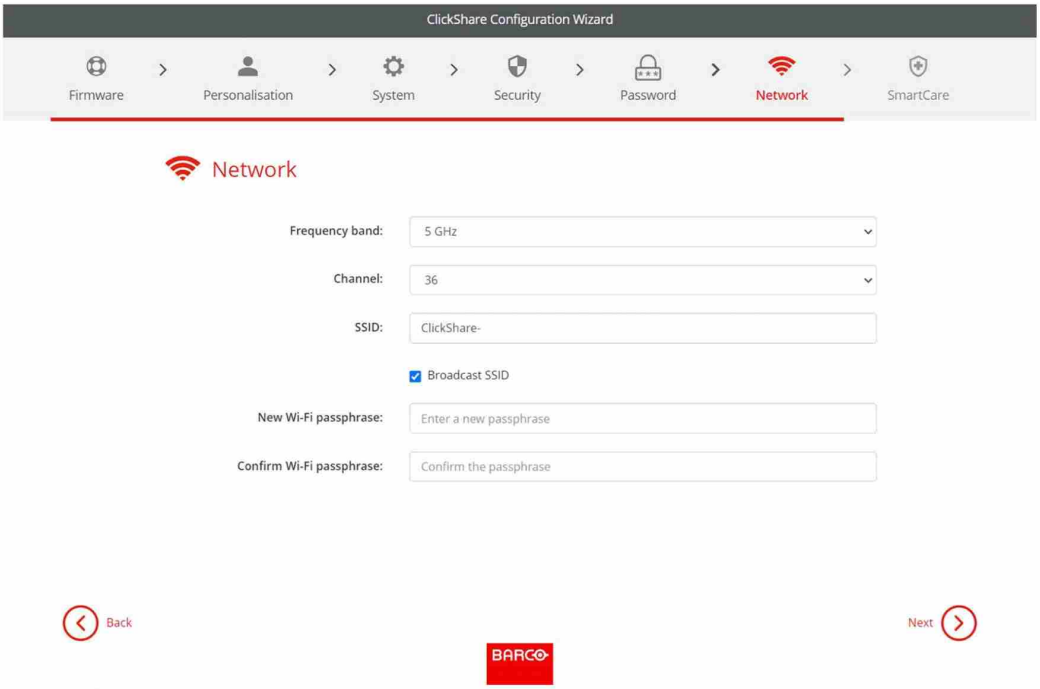

Image 5–10 Example of the network page

Tip: To minimize connection instabilities, it is highly recommended to stagger the channel settings across multiple Base Units or other wireless devices!

12. Register the Base Unit in XMS Cloud to complete the SmartCare registration.

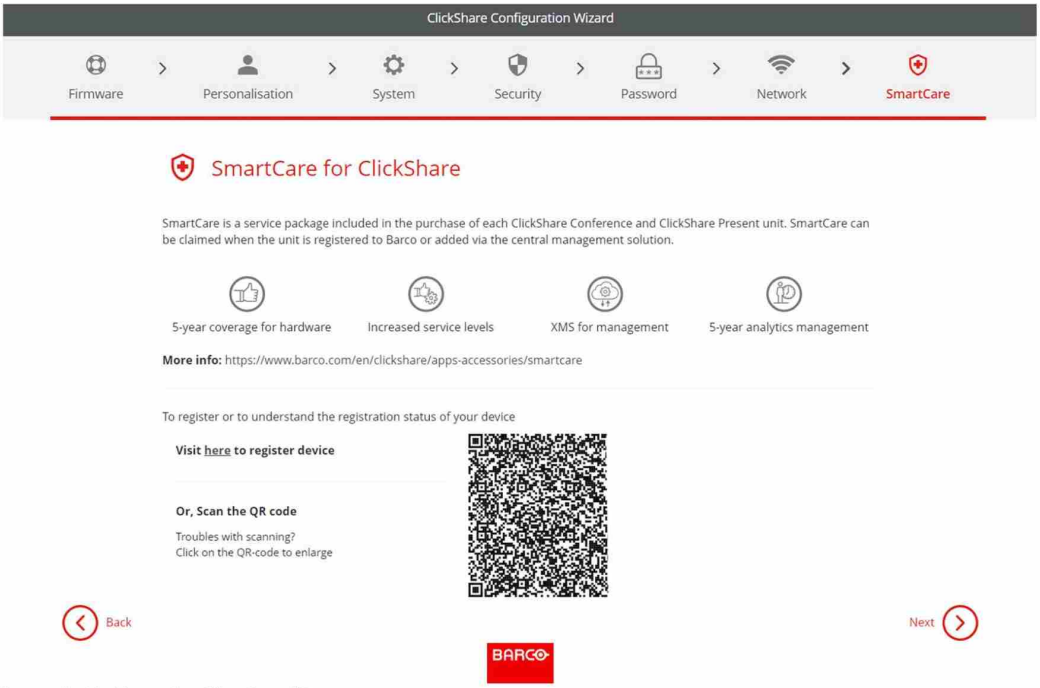

Image 5–11 Example of the SmartCare page

To activate the 5 year warranty with SmartCare, registration in XMS Cloud is required. There are two ways to register on XMS Cloud:

- **Pc registration**: click the link below the QR code to start the registration process. For more information, see "Pc onboarding", page 44.
- **Mobile registration**: scan the QR code on screen or on the label on the Base Unit. For more information, see "Mobile onboarding", page 45

Tip: If the QR code is too small to be scanned, then click on the QR code to enlarge it.

13. An overview of the chosen setup is shown on the last page. Click "**finish configuration**" to complete the initial setup.

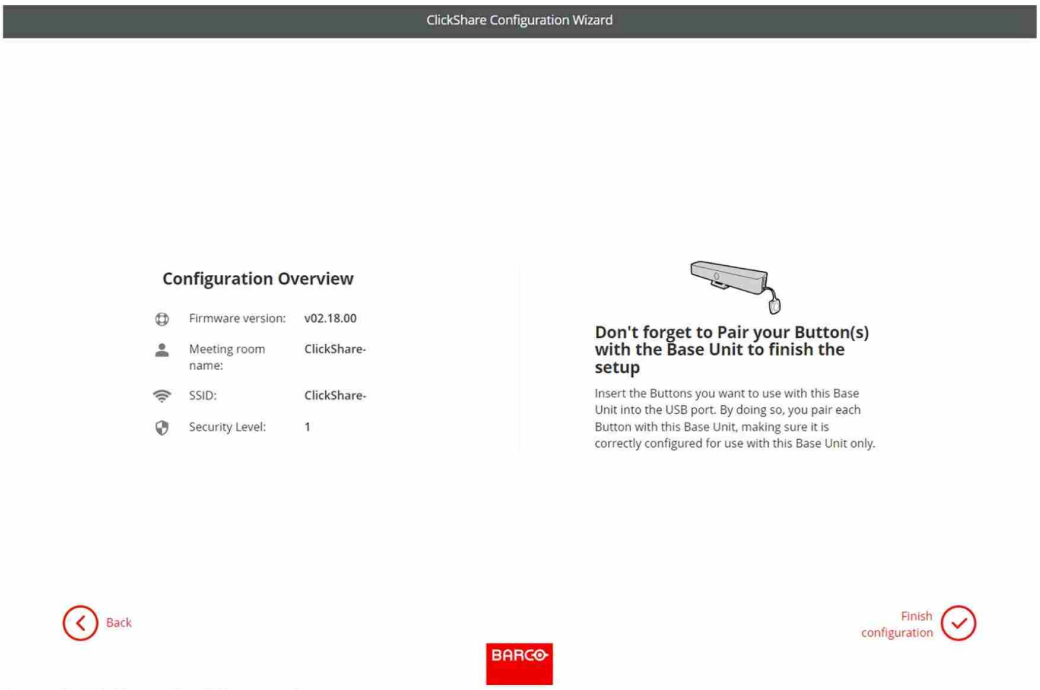

Image 5–12 Example of the overview page

Note: If a setting is wrong or something needs to be changed, click the "**back**" button until the desired chapter is reached.
It is possible to go back and forth between every setting at any time.

A warning might be given depending on the changes, click "**finish configuration**" in the pop-up to continue or click "**back**" to modify the settings again.

The configurator homepage will be shown with confirmation that the system has been successfully configured!

5.3 XMS Cloud registration

About registration

Registering the Base Unit allows for more control, more features to be available and a **5 year SmartCare package**.

A SmartCare package includes:

- 5-year coverage for hardware
- Increased service levels
- XMS for management
- 5-year analytics management

For more info, see *https://www.barco.com/en/clickshare/apps-accessories/smartcare*.

5.3.1 Pc onboarding

How to register on pc

1. Click on the link below the QR code on the SmartCare page of the configurator.
2. Do you have an XMS Cloud account?
   - ► **If yes**, log in and go to step 4.
   - ► **If no**, register an account by following the next step.
3. Are the unit(s) being installed for a client?
   ► **If yes**, select "*Reseller/Integrator*" and create or choose the client, called organisation in XMS, from the fields below.
   ► **If no**, select "*Owner/Admin*" and create or choose a name for the organisation where the unit is installed.

   Note: The selected role cannot be changed!

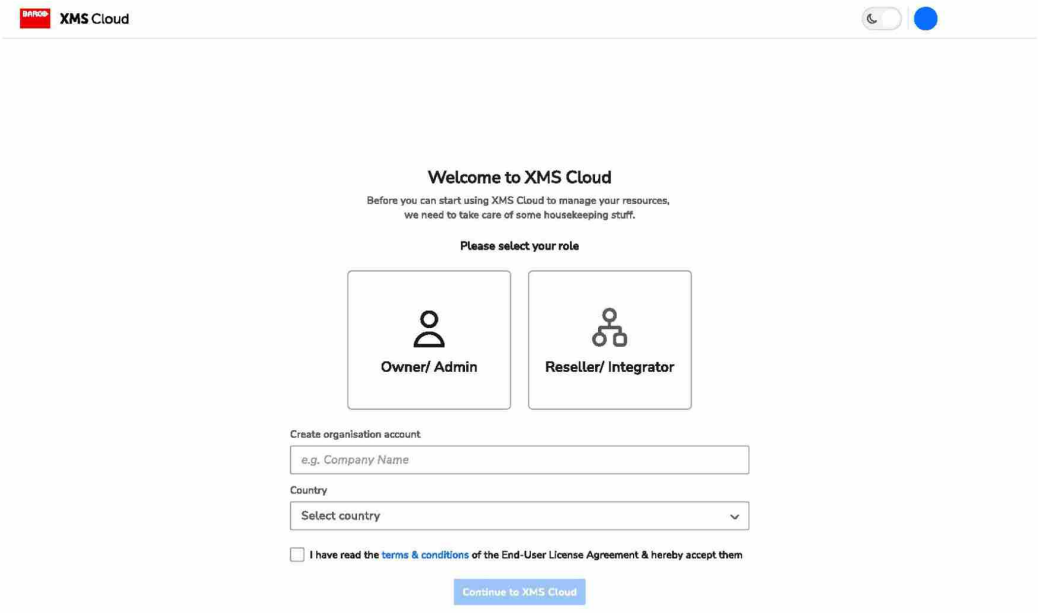

Image 5–13 Example of the registration log-in page on pc.

Available Base Unit(s) will automatically be scanned and prepped for registration.

4. Review the information to ensure the correct Base Unit(s) will be added to the correct organisation. If the information is correct, click "**Continue**".

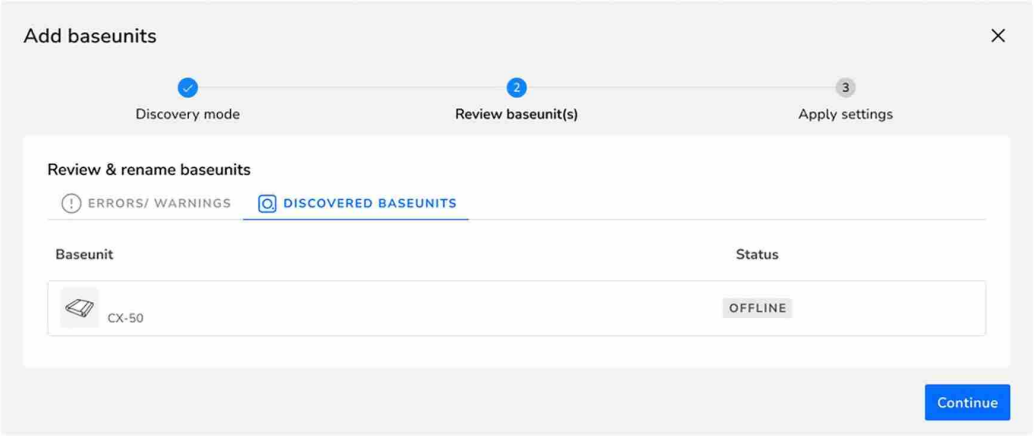

Image 5–14 Example of linked Base Unit(s)

Tip: A Base Unit can only be registered to one organisation at a time! If a Base Unit must be changed to a different organisation, then the Base Unit must be unlinked first!

Connect the Base Unit to the network to finalise the onboarding.

5. For more information on how to manage the added Base Unit(s) or use XMS Cloud, see the XMS Cloud user guide.

5.3.2 Mobile onboarding

How to register on mobile

1. Scan the XMS Cloud QR code on one of the possible locations.
   - On the Base Unit itself.
   - On the landing page of ClickShare of a connected display.
   - On the SmartCare page of the configurator.
2. Do you have a XMS Cloud account?
   - **If yes**, log in and go to step 4.
   - **If no**, register an account by following the next step.
3. Are the device(s) being installed for a client?
   - **If yes**, click "*Reseller/Integrator*".
   - **If no**, click "*ClickShare Owner/Admin*".

Note: The selected role cannot be changed!

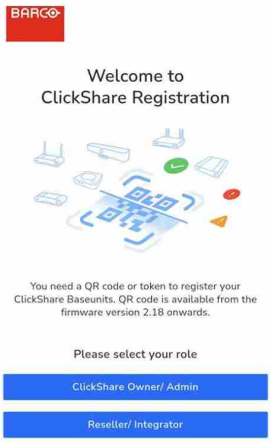

Image 5–15 Example landing page after scanning the QR code.

The registration page will be shown.

4. Click on the arrow “>” or search and click on the arrow “>” for the desired organisation from the list.

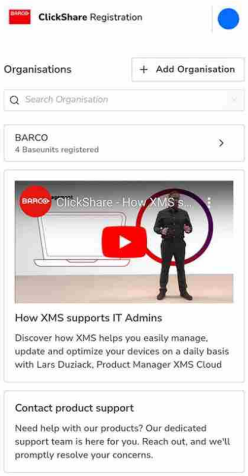

Image 5–16 Example of the registration page.

If the desired organisation is not in the list, follow the below substeps to create a new organisation within XMS Cloud.

a) Click on “+ *Add Organisation*” to create a new organisation.
b) Enter the name and select the applicable country.

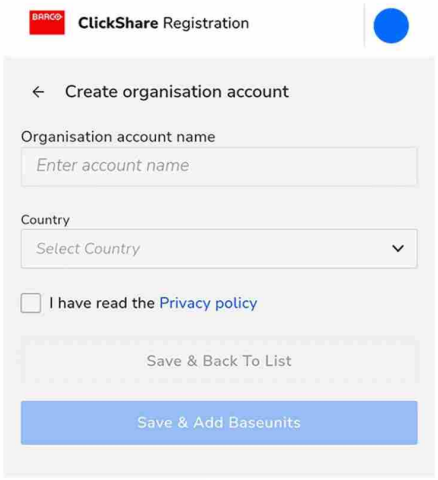

Image 5–17 Example of creating an organisation.

c) Read and check the checkbox for the "*Privacy policy*".
d) Click "*Save & Add Base Units*" to link the Base Unit to the newly created organisation or click "*Save & Back To List*" to create another organisation or choose an existing one.

An overview of the selected organisation will be show. View the currently registered Base Unit(s) or get a quick overview of the Base Unit(s) that are still waiting finalization of the registration.

5. Click "*Add Base Unit*" to start registering device(s).

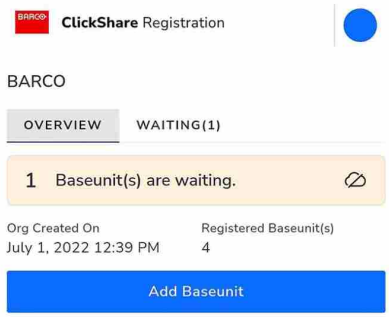

Image 5–18 Example of the organisation overview.

6. Scan the QR code of the Base Unit again to register it to XMS Cloud. Base Unit(s) with firmware lower than 2.18 must follow the below substeps as alternative to scanning.

Tip: The browser must be given access to the camera to be able to scan the codes!

First time use

Image 5–19 Example of QR code scanning page.

Aim the camera in such a way that the entirety of the QR code fits within the white rounded rectangle. If successful, then the Base Unit will be processed and registered.

a) Click on the "*Register With Token*" button to manually add the Base Unit.

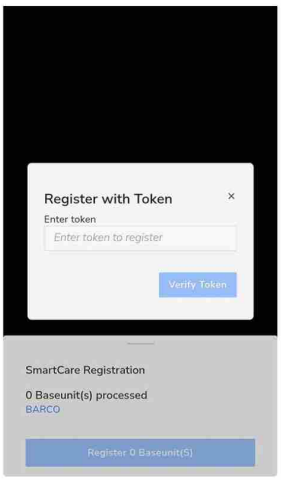

Image 5–20 Example of manual registration with a token.

b) Enter the serial number of the Base Unit.
c) Click "*Verify Token*" to process and register the Base Unit.

Tip: If the camera and token registration cannot be found, click on "+ *Add More*" to reopen these.

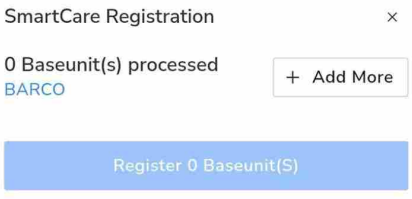

Image 5–21 Example of the add more location

Repeat these (sub)steps until all desired Base Units have been added.

7. Review the list of added Base Unit(s) and click "*Register Base Unit(s)*".

Tip: A Base Unit can only be registered to one organisation at a time! If a Base Unit must be changed to a different organisation, then the Base Unit must be unlinked first!

A pop-up will be shown that the Base Unit must be connected to the network to finalise the onboarding.

8. For more information on how to manage the added Base Unit(s) or use XMS Cloud, see the XMS Cloud user guide.

First time use

ClickShare configurator 6

About ClickShare configurator

The configurator is a web application that gives access to the settings, features, options, tons of information and useful insights of the ClickShare setup. Every functionality of the configurator will be explained in this chapter, by following the menu structure that is used in the configurator itself.

To access or manage the functionality that is being explained, navigate to the name of the chapter within the configurator.

6.1 Login page

About login

Before getting access to the configurator, a login screen will be shown requesting to log in with a username and password.

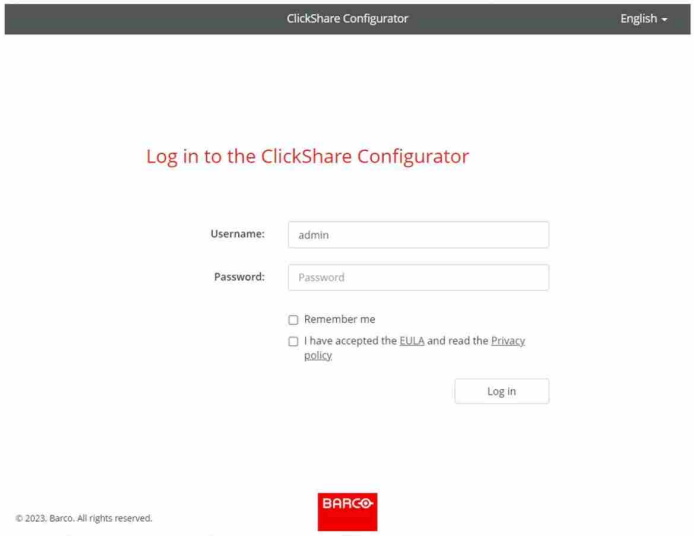

Image 6–1 Example of the login page of the ClickShare configurator

How to log in

1. Navigate to the configuration page through a browser of choice.

   Note: The default IP address of the configurator is: "*192.168.2.1*".

   Note: Depending on the configuration of the browser, a security warning could be displayed. To prevent this warning in the future, see "HTTP encryption", page 78.

2. Select a desired display language from the language selector at the top right. (**optional**)
3. Fill out the username and password.

   Note: The default username and password are both "admin".

4. Have the configurator remember the entered username and password by checking the box in front of "*Remember me*". (**optional**)
5. **Read** the linked EULA and Privacy policy, then click the checkbox to accept the terms.
6. Click the "*Log in*" button to sign in.

   When successfully logged in, the homepage of the configurator will be shown.

6.2 Configurator UI (User Interface)

6.2.1 About the configurator UI (User Interface)

Overview

The configurator UI (User Interface) is built up out of three main sections:

- **The header** (dark grey background)
- **The side bar** (light grey background):
  Used to navigate through the features.
- **The main window** (white background):
  Displays information about the currently selected category and allows for the editing of features.

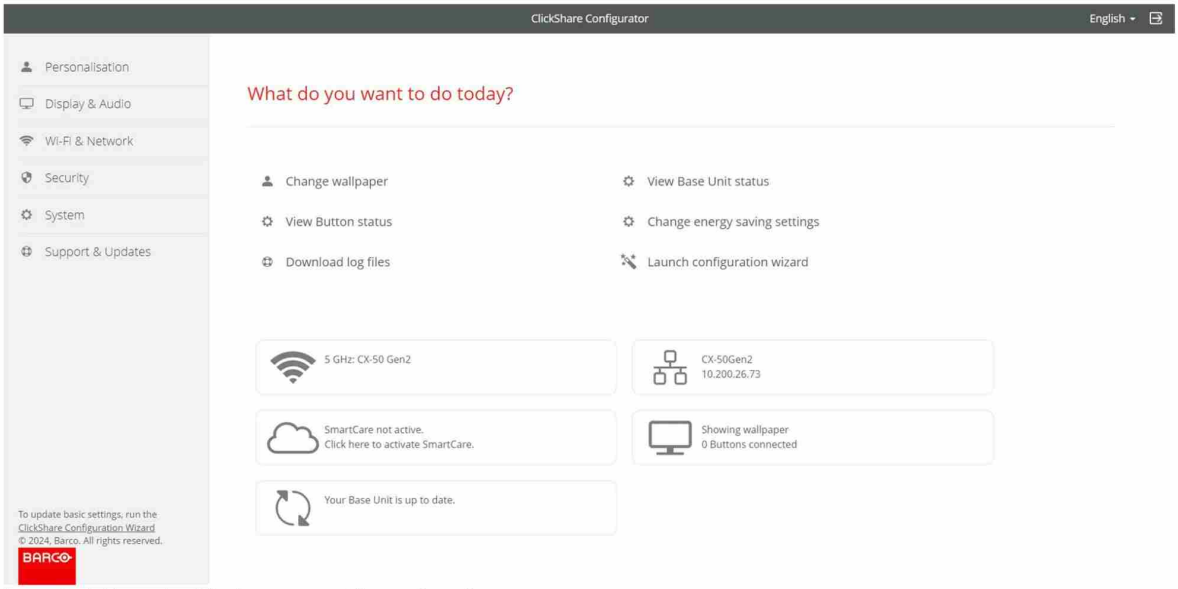

Image 6–2 Example of the homepage of the configurator

6.2.2 Header

Overview

The header consists of three basic features and can be accessed at any time while navigating the ClickShare configurator:

- Dashboard
- Language selector
- Logout

Image 6–3 Example of the header of the configurator

About dashboard

The dashboard can be seen as a homepage or landing page for the configurator and is the first page that gets displayed.

Clicking on the text “ClickShare Configurator” at the center of the header, will show the dashboard page. For more information, see “Main window”, page 55

About language selector

The language selector allows for the configurator to be displayed in multiple languages. The chosen language is applied across the entire web application and can be changed at any time.

Change the language by clicking on the name of the current display language or by clicking on the downwards arrow to the right of said text.

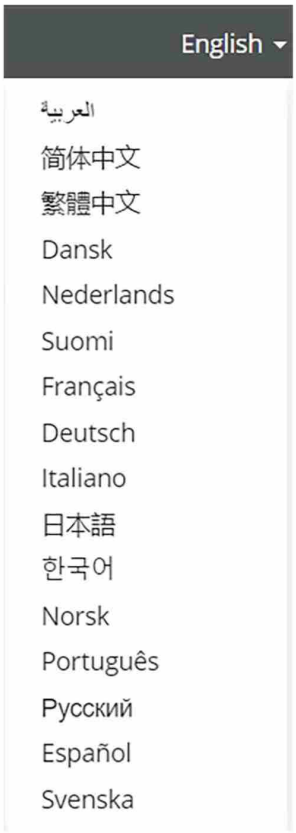

Image 6–4 Example of the language selector and the available languages

About logout

Image 6–5 Logout icon

Logging out can be done by clicking the icon to the right of the language selector downwards arrow. When logged out, the configurator will be redirected to the log in page and request a sign in.

6.2.3 Side bar

Overview

The side bar or navigation bar contains the menu structure of the configurator. Every setting and options that can be viewed or modified is subdivided in its own category with subcategories. Navigating through these (sub)categories will impact what gets show on the main window. Only the currently opened category will show its subcategories.

Navigating through the (sub)categories can cause unsaved changes to be lost. Always verify that changes have been applied before switching to another (sub)category!

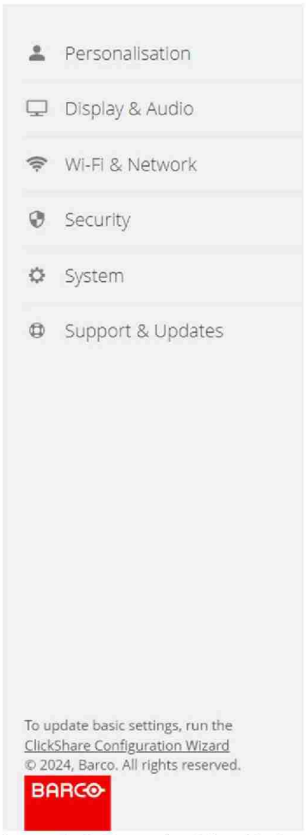

Image 6–6 Example of the side bar

Configuration wizard

At the bottom of the side bar, a link to the configuration wizard is shown at all times. Use this link when an initial setup flow of the configurator, as described in "The ClickShare configuration wizard", page 38, could be beneficial.

6.2.4 Main window

Overview

All settings, information and options will be shown in the main window section. The content that is shown depends on both the selected (sub)category and the active settings.

By default the dashboard is shown, which gives an overview of the following information:

- Links to useful settings.
- Basic network information.
- General Base Unit information.
- Current sharing status.

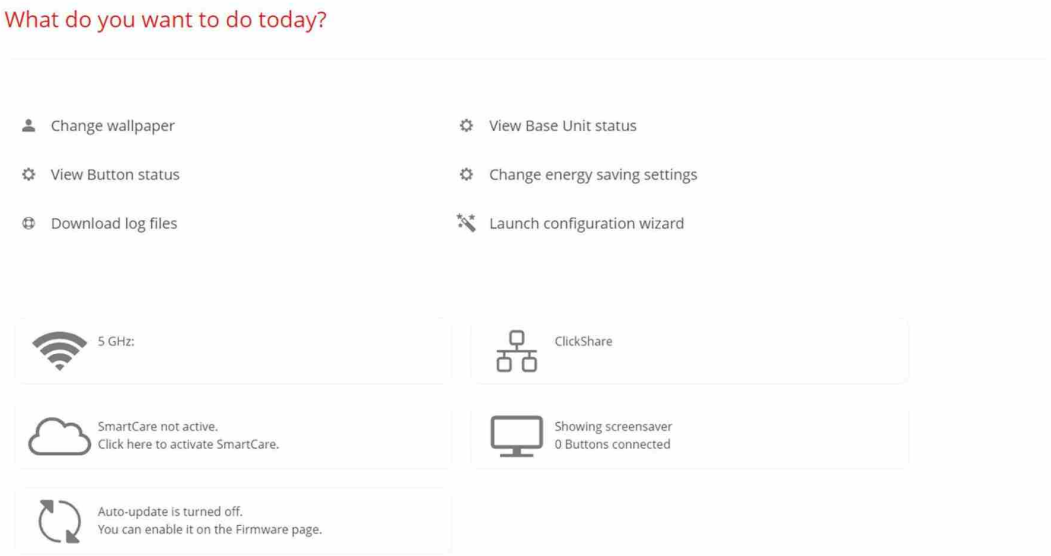

Image 6–7 Example of the main window

About user interface (UI) elements

The main window can use varying elements to control and modify settings. Each having different functionality and intent:

- **Input field**, a dedicated box where text can be typed.
- **Push button**, will preform the action written in the button when clicked.
- **Checkbox**, allows for the toggling of features or options.
- **Radio button**, switches the functionality to the selected option.
- **Drop-down list**, will show a list of available options to choose from when clicked.
- **Slider with a red dot**, allows for a value to be picked from a range of options.

6.3 Personalisation

About personalisation

Personalisation enables modification of the look and feel of ClickShare within the meeting room.

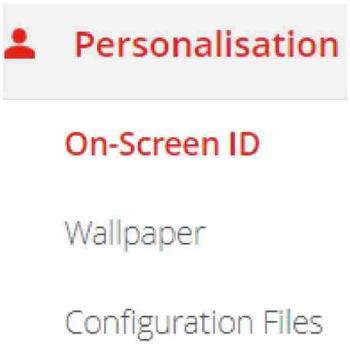

Image 6–8 Example of the personalisation category

6.3.1 On-screen ID

Overview

The On-Screen ID is a window that shows basic information about the ClickShare on the connected screen. This information can be shown in one of two types:

- **Standard**, showing detailed information over the wallpaper.

Image 6–9 Example of an on-screen ID over the wallpaper

- **Small**, showing the most important information on the status bar at the bottom.

Image 6–10 Example of an on-screen ID in the status bar

How to edit on-screen ID

Depending on the chosen on-screen ID type different information can be displayed. Which information that gets shown can be modified by editing the following information:

- Select the display language from the drop-down list after the text "*Language for on-screen text*".
- Show the name of the meeting room in the input field after "*Meeting room name*".
- Show the location of the meeting room in the input field after "*Location name*". (**Only for standard type**)
- Enter a welcome message to be displayed in the input field after "*Welcome message*". (**Only for standard type**)
- Toggle the network information with the checkbox before "*Show network info*". Only one network connection, with preference for the wired connection, will be shown for the small type.
- Toggle whether the status bar at the bottom of screen is shown or hidden while sharing with the checkbox before "*Enable theater mode*".

Click the "Save changes" push button, to commit the modifications to the Base Unit.

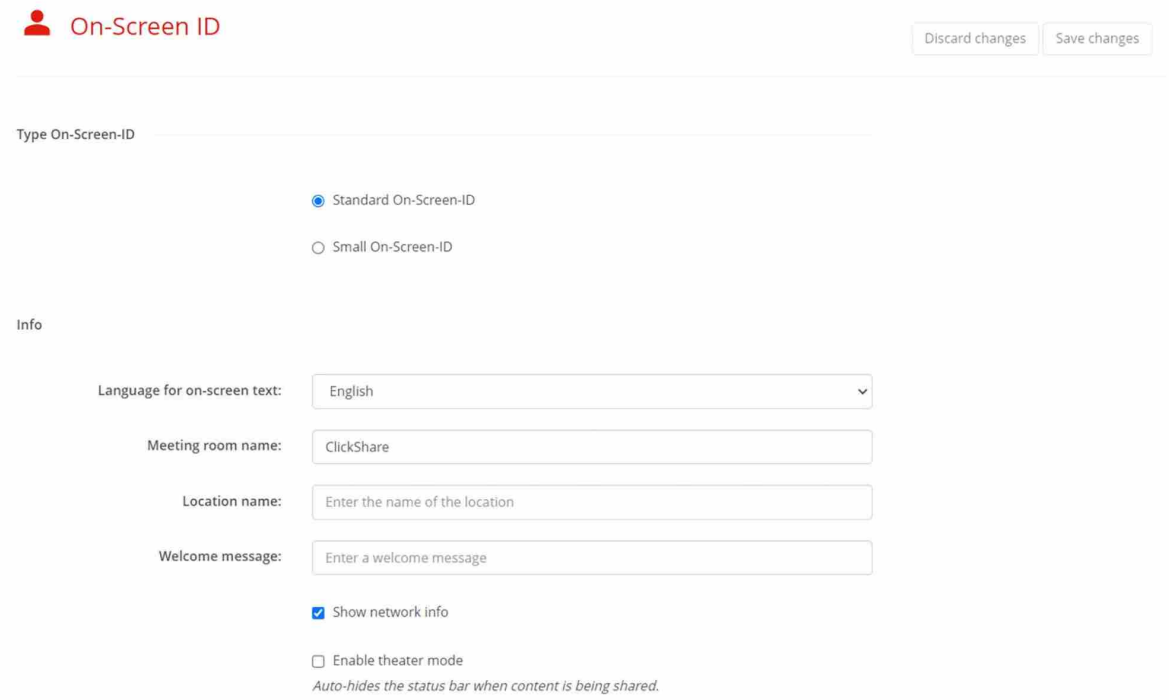

Image 6–11 Example of the on-screen ID page in the configurator

6.3.2 Wallpaper

About wallpaper

The wallpaper shows a chosen background image on the connected screen while the ClickShare is not being used. The default Barco wallpapers will auto-size to the displays resolution. User uploaded wallpapers will be verified by the configurator against format and size.

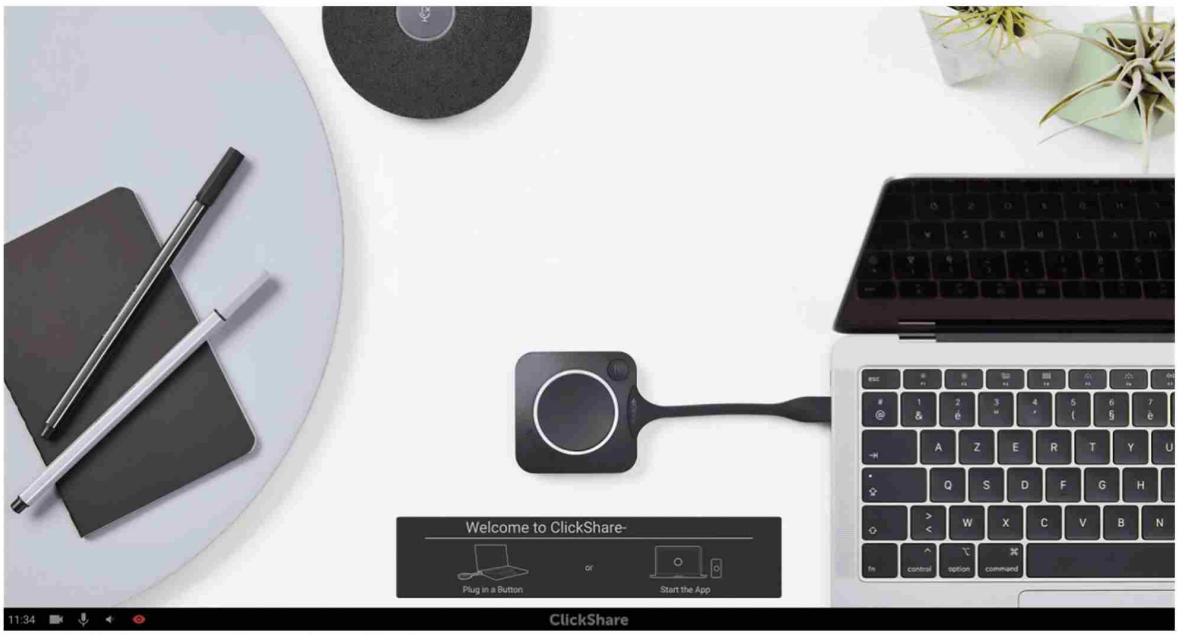

Image 6–12 Example of a displayed default wallpaper

How to change the wallpaper

Toggle the wallpaper functionality with the checkbox in front of "*Show the wallpaper when no one is sharing their screen*".

Hiding the wallpaper will also hide the on-screen ID information!

Choose one of the default backgrounds provided by Barco by clicking on their tiles or upload a custom image by clicking on the tile with "*Choose image*".

Maximum five custom wallpapers can be added.

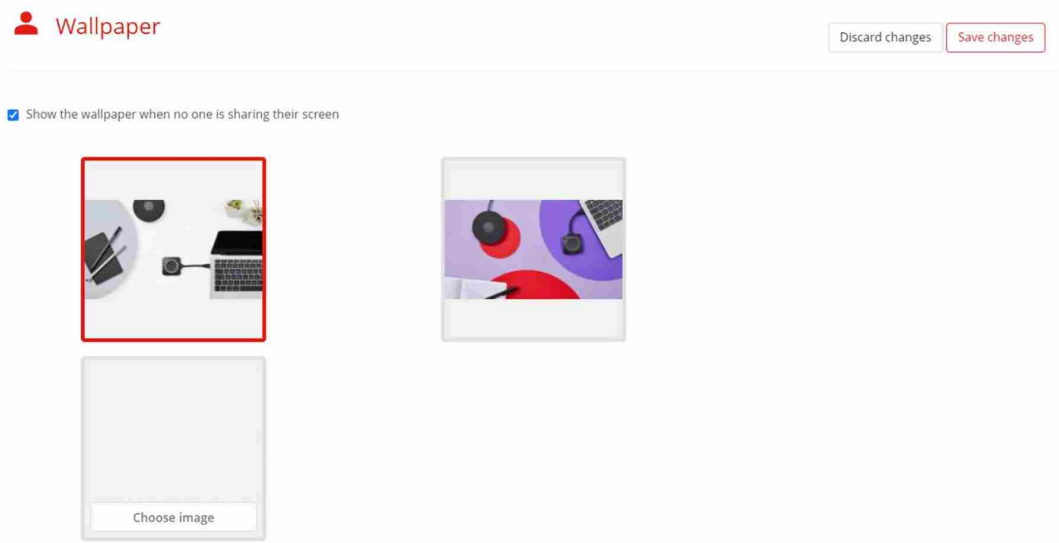

Image 6–13 Example of the wallpaper page in the configurator

Click the "Save changes" push button, to commit the modifications to the Base Unit.

Remove or download a wallpaper

Image 6–14 Download icon while hovering over a wallpaper

Image 6–15 Trash can icon while hovering over a custom wallpaper

Hovering over a wallpaper will reveal the hidden icons for downloading and deleting that wallpaper. Only custom wallpapers can be deleted!

6.3.3 Configuration files

About configuration files

Configuration files can save settings and history of a Base Unit. These files allow for a quick restore of settings on the same Base Unit or to transfer settings to other similar Base Unit(s).

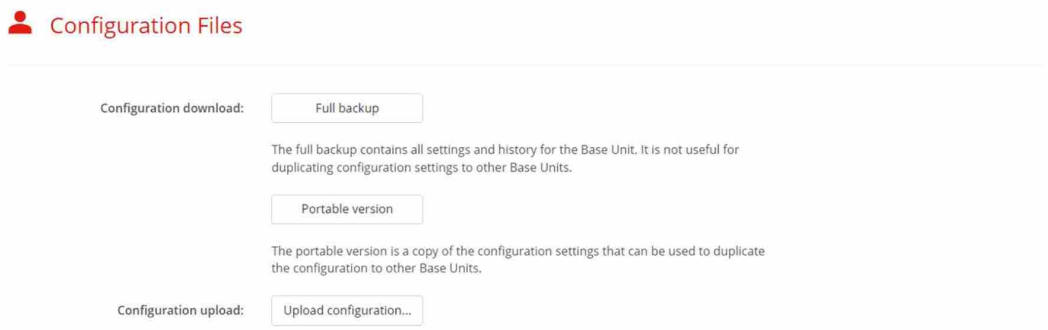

Image 6–16 Example of the configuration files page in the configurator

Creating a backup / configuration file

1. Decide which type of backup is applicable by clicking on the push button with the name of the chosen type:
   - **Full backup**, to restore settings of the same Base Unit where the backup was created.
   - **Portable version**, to transfer settings to Base Unit(s).
2. Save the created backup file in a desired location.

Restoring a backup / configuration file

1. Click on the push button "*upload configuration...*".
2. Navigate to the location of the desired backup file.

   A warning will be displayed after progress reaches 100%.
3. Double check if the correct file was chosen.
   - If the correct file was chosen, click "*Yes, continue*" to finalize the process.
   - To select another file or abort the backup process press "*No, I changed my mind*".

6.4 Display & audio

About display & audio

Manage the connected external devices such as displays, peripherals and other meeting room solutions.

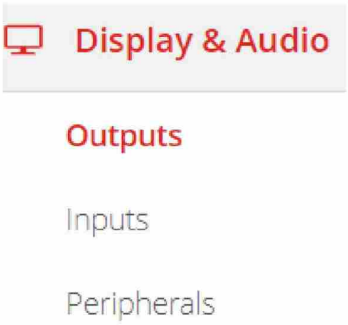

Image 6–17 Example of the display & audio category

6.4.1 Outputs

About output

Gives a general overview and basic settings for all connected display(s).

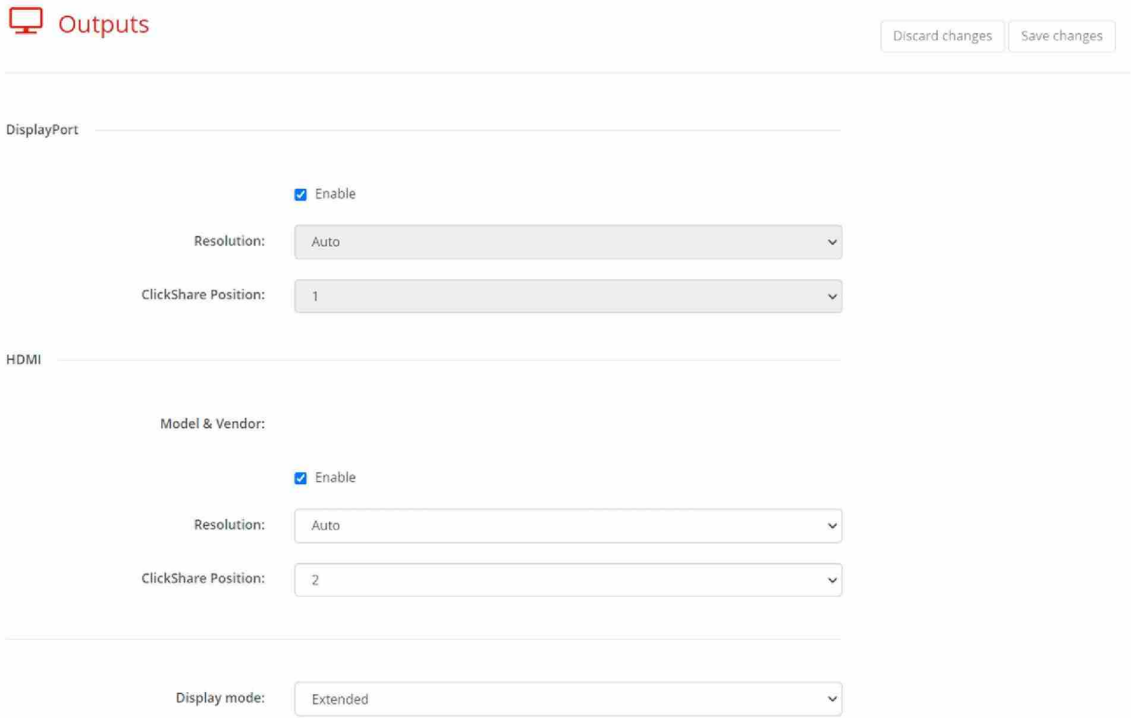

Image 6–18 Example of the output page with one display connected

Managing displays

If a display is correctly connected to the ClickShare Base Unit, then its model and vendor name will be displayed after “Model & Vendor” under the used connection type. If no display is detected, then this field will be hidden and the options greyed out.

Any undesired connection protocol can forcefully be turned off by toggling the check box in front of “Enable”.

If a display is connected to a disabled connection protocol, then no image will be displayed on the screen,

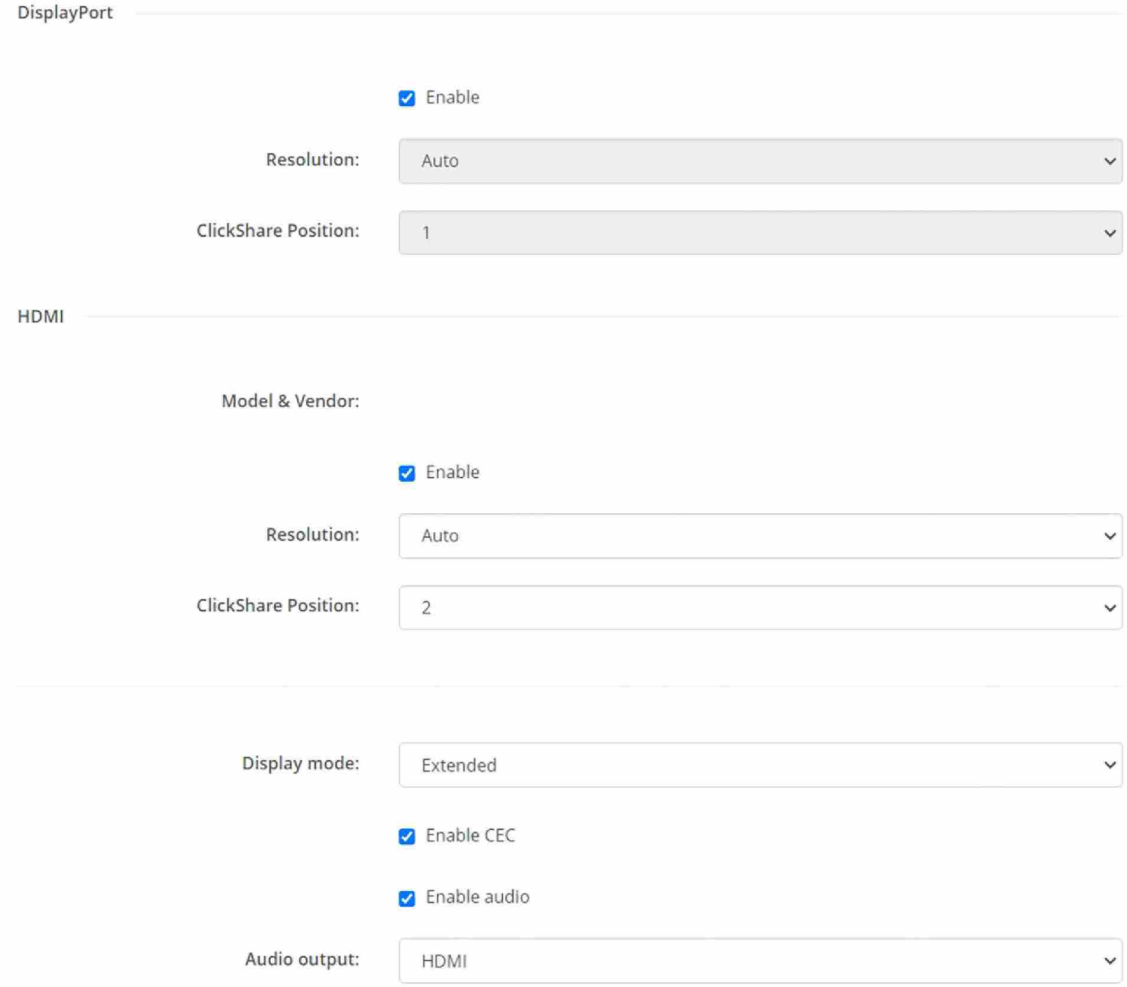

Image 6–19 Example of the display options for one connected display on HDMI

Resolution

By default the resolution is set to “Auto”, meaning ClickShare will follow the displays settings. However, it is recommended to select a fixed resolution.

Select the desired resolution to be displayed from the drop-down list after “Resolution”.

Click the “Save changes” push button, to commit the modifications to the Base Unit.

Position

If two displays are connected to ClickShare, then it is possible to switch their position.

Select a different number from the drop-down list after “ClickShare Position” to swap the two displays.

Click the “Save changes” push button, to commit the modifications to the Base Unit.

Display mode

When sharing with ClickShare it is possible to select the default mode that will be used. This setting can be temporarily overwritten by the user while sharing.

There are two modes available:

- **Extended**, which will add the ClickShare display(s) as new screen(s) on the connected device.
- **Clone**, which will mirror the screen of the connected device onto the ClickShare display(s).

Select the desired default mode from the drop-down list after “Display mode”.

Click the “Save changes” push button, to commit the modifications to the Base Unit.

CEC (Consumer Electronics Control)

CEC allows connected device to communicate with each other over an HDMI connection. Supported functionalities are:

- Control connected peripherals with one remote.
- Let the connected display wake the Base Unit.

Toggle the checkbox in front of “CEC” to enable or disable this feature.

Click the “Save changes” push button, to commit the modifications to the Base Unit.

Audio

If no audio should be present while meeting, then uncheck the check box in front of “Enable audio”. All forms of playing audio over ClickShare will be disabled.

When audio can be played over ClickShare, then the source of the audio must be selected in the drop-down list after “Audio output”.

Click the “Save changes” push button, to commit the modifications to the Base Unit.

Screensaver

To prevent damage to an idle connected display, a screensaver timer can be set. When the ClickShare system has been idle for the set amount of time, then the screensaver will automatically be displayed. The screensaver will be removed once activity has been detected.

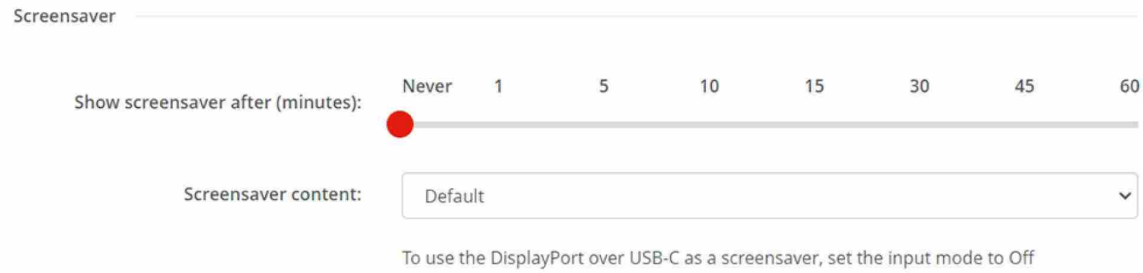

Image 6–20 Example of the screensaver options

Select the desired time interval by dragging the red dot after “Show screensaver after (minutes)” close to the desired number of minutes. The red dot will snap to the nearest number when letting go.

The type of screensaver that will be shown can be changed by selecting the desired option from the drop-down list after “Screensaver content”:

- **Default**, uses the standard Barco screensaver.

- **DisplayPort over USB-C**, uses the signal from the DisplayPort connection to display a custom screensaver.

DisplayPort over USB-C screensaver is only possible if the DisplayPort protocol is disabled as output.

Click the “Save changes” push button, to commit the modifications to the Base Unit.

6.4.2 Inputs

About inputs

Image 6–21 Example of the Inputs page

It is possible to attach the meeting room display(s) and peripherals to a computer with a wired connection via the ClickShare system. Select the connection method from the drop-down list after “Input Mode”:

- **Wired roomdock**, display(s) and room peripherals will be connected to the computer.
- **DisplayPort over USB-C**, the display(s) will be connected to the computer.
- **Off**, disables the input functionality.

ClickShare will show if an active connection is present with the icon after “Signal”.

How ClickShare gets identified on the connected computer can be changed by typing a desired name in the input box after “Source Name”.

Click the “Save changes” push button, to commit the modifications to the Base Unit.

6.4.3 Peripherals

About peripherals

The peripheral page gives an overview of all connected peripherals and their status, if applicable.

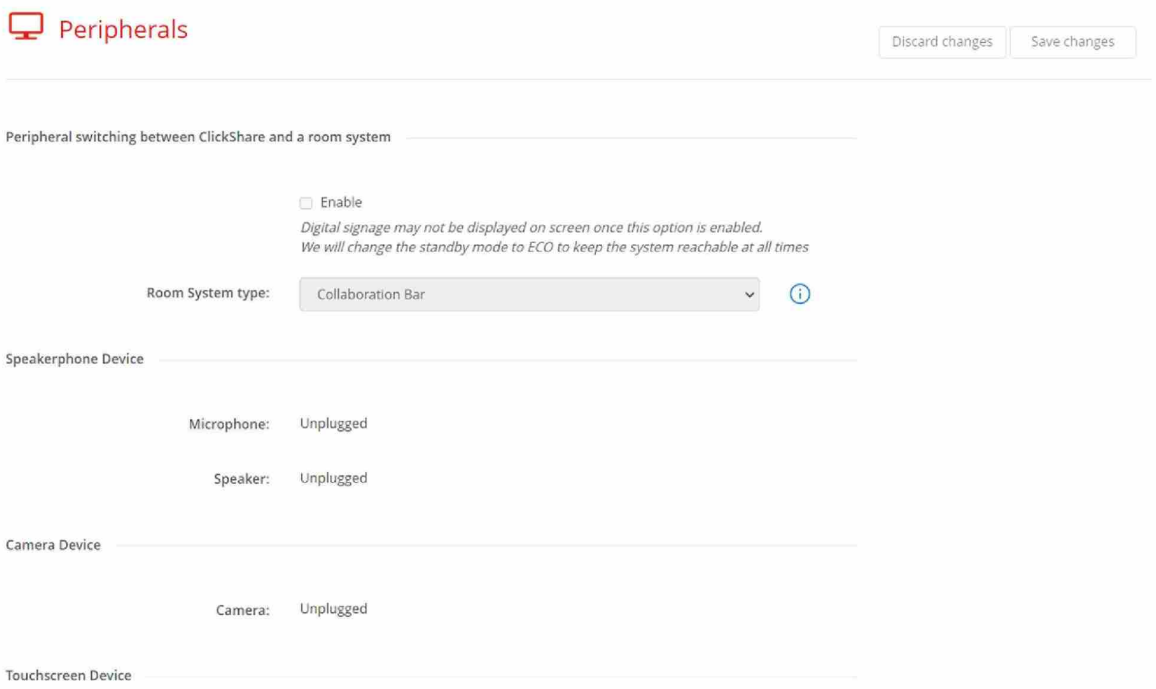

Image 6–22 Example of the peripherals page

Flexible meeting rooms

Seamlessly integrate ClickShare with a flexible meeting room by toggling the check box in front of “Enable”.

Standby mode will automatically switch to, and remain locked as “ECO mode”.

When the flexible meeting room is enabled, the type of system must be selected in the drop-down list after “Room System type”:

- Collaboration bar.
- Modular setup.

To ensure all features are available when selecting “**Modular Setup**”, ensure the following:

- Set the ClickShare audio output to “**USB**”. For more information, see “Outputs”, page 61
- Ensure the following settings on the modular device:
  - **Automatic screen sharing** set as enabled.
  - **Default audio configuration** set as “echo cancelling speakerphone”.
  - **Default video camera** set as “Room Camera”.

Quality score camera

ClickShare checks and scores the quality of the connected camera.

Image 6–23 Example of a camera quality score

The score is given on a scale from 0 to 100 and is affected by the camera stream quality, format and framerate. The color of the indicator is dependant on the score and follows the following boundaries:

- Green: >68
- Orange: 35 – 68
- Red: 0 – 34

Update peripherals

ClickShare helps check for new firmware and allows firmware updating of certain connected peripherals. If an update has been found, a push button with “Install” will become visible.

6.5 Wi-Fi & Network

About Wi-Fi & network

View and manage all the network settings of the Base Unit.

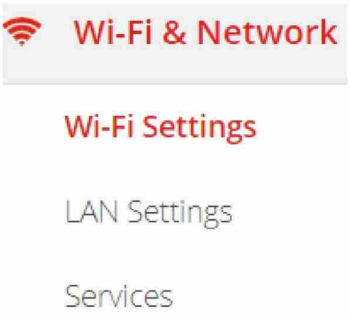

Image 6–24 Example of the Wi-Fi & Network category

6.5.1 Wi-Fi settings

SCEP
Simple Certificate Enrollment Protocol is a protocol that simplifies the requesting and issuing of digital network certificates for network equipment. Mainly used in bigger organisations where a large number of network equipment must be managed. To use SCEP, ClickShare requires the SCEP server address, the SCEP challenge and a name for ClickShare to identify itself on the SCEP server. This information is obtained from the local IT department.

NDES
Network Device Enrollment Service is a setup for a separate server that runs SCEP to manage digital network certificates for network equipment. Many implementations of SCEP use NDES. To use NDES, ClickShare requires the SCEP server address, the username and password ClickShare must use to log into the NDES server and a name for ClickShare to identify itself on the SCEP server. This information is obtained from the local IT department.

About Wi-Fi settings

An overview of the current settings is given when opening the Wi-Fi settings. These settings can be modified by clicking the “Edit settings” push button at the top right.

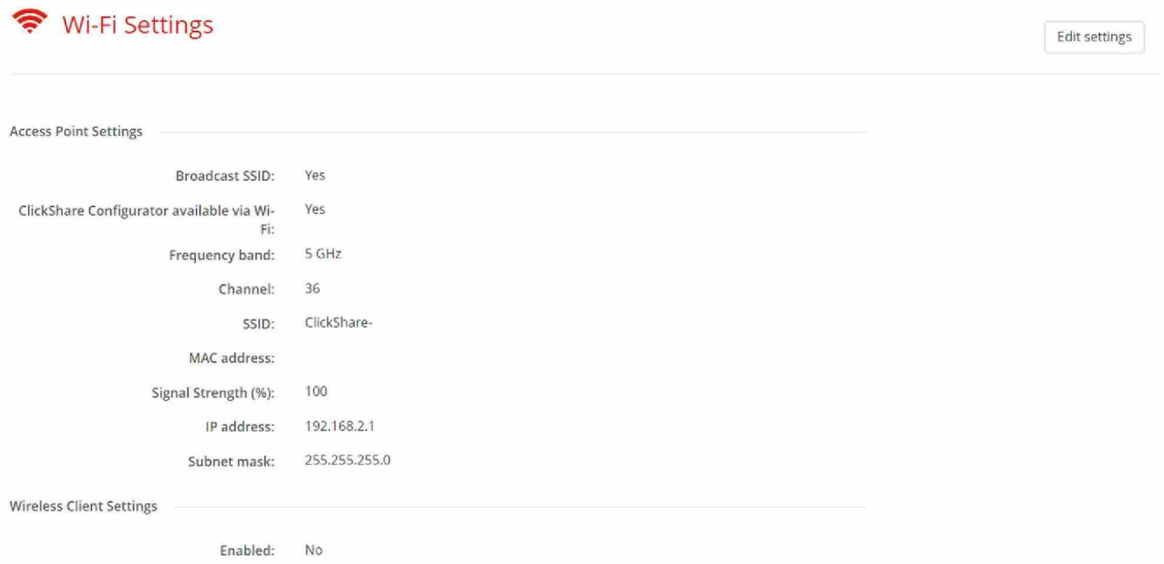

Image 6–25 Example of the Wi-Fi settings page

The Wi-Fi can be configured in multiple main ways:

- Access point mode (**default**)
  Configures the Base Unit to act as a wireless access point, thus sending out its own wireless network. This wireless network can be accessed by any wireless device that has the correct “SSID” and “password”.
- Wireless client mode
  Configures the Base Unit to connect to a wireless network as a client.

Image 6–26 Example of the edit page for Wi-Fi settings

Enable the desired Wi-Fi mode by checking the checkbox in front of “Enable”.

How to configure access point mode

1. Choose and enter a passphrase (password) for the Wi-Fi network in the input field after “New Wi-Fi passphrase”.

   Tip: There are no required criteria for creating the password. In general the longer the password the more secure.

2. Confirm the passphrase by entering the same passphrase (password) a second time in the input field after “Confirm Wi-Fi passphrase”.
3. Must the network be discoverably by wireless devices?
   ► **Yes**, check the checkbox in front of “Broadcast SSID”.

- **No**, uncheck the checkbox in front of “Broadcast SSID”.

4. Must the configurator be accessible through Wi-Fi connections?
   - **Yes**, check the checkbox in front of “ClickShare Configurator available via Wi-Fi”.
   - **No**, uncheck the checkbox in front of “ClickShare Configurator available via Wi-Fi”.
5. Choose the desired frequency from the drop-down list after “Frequency band”:
   - 5 GHz (**default**), recommended
   - 2.4 GHz, not recommended
6. Change the channel by selecting a number from the drop-down list after “Channel”.

   Note: Stagger the channels used by wireless devices in the same area to minimize interference of the signals. Use a wireless channel analyzer near the location of the Base Unit to find the least crowded channel.

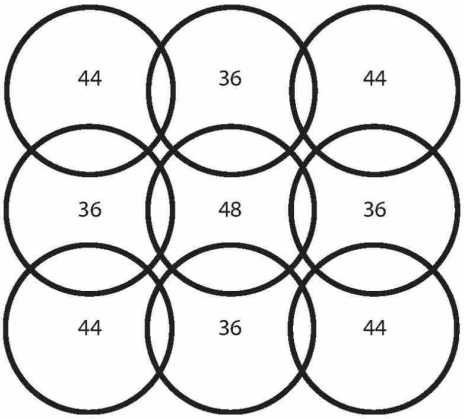

Image 6–27 Example of channel overlap for 5GHz

7. Name the wireless network by entering an SSID in the input field after “SSID”.

   Note: A name is required even if the SSID is set to hidden!

8. Optionally slide the red dot next to “Signal Strength (%)” to decrease the strength of the signal by the number closest to the red dot.

   Decreasing the signal strength is a great way to minimize the signal being present and interfering with other signals outside of the meeting room.
9. Optionally modify the IP address of the Base Unit.

   Note: For more information about how to manually configure the IP address, contact the local IT responsible of the network.

10. Click “Save changes” at the top of the page to commit the changes to the Base Unit!

How to configure wireless client mode

1. Select the applicable authentication mode from the drop-down list after “Authentication Mode”:
   - **WPA2-PSK**, using a password to authenticate clients.
   - **PEAP**, allowing for either the EAP-TLS and EAP-TTLS methods of authentication depending on the setup.
   - **EAP-TTLS**, using a log-in server where the server issues certificates to the client via user authentication with password credentials.
   - **EAP-TLS**, using a log-in server where both client and server require a certificate. The certificates can be provided to ClickShare by SCEP, NDES or manual upload.

   Tip: SCEP requires the SCEP server address, the SCEP challenge and a name for the Base Unit to identify itself on the SCEP server.
   NDES requires the SCEP server address, the username and password Base Unit must use to log into the NDES server and a name for Base Unit to identify itself on the SCEP server.

Depending on which authentication was chosen, different input fields and/or drop-down lists will be shown.

2. Fill out the required network detail fields to authenticate the Base Unit as a client of the host network.

   Note: For information about how to fill in these fields or what to select for the drop-down lists, contact the local IT responsible of the network.

3. Decide how the Base Unit must acquire its IP address, by selecting an option from the drop-down list after "Method":
   - **Automatic (DHCP)**, IP configuration will be handled by the network.
   - **Manual**, input fields below the "Method" drop-down list will be enabled to allow for manual IP address configuration.

   Note: For more information about how to manually configure the IP address, contact the local IT responsible of the network.

4. Click "Save changes" at the top of the page to commit the changes to the Base Unit!

6.5.2 LAN settings

SCEP
Simple Certificate Enrollment Protocol is a protocol that simplifies the requesting and issuing of digital network certificates for network equipment. Mainly used in bigger organisations where a large number of network equipment must be managed. To use SCEP, ClickShare requires the SCEP server address, the SCEP challenge and a name for ClickShare to identify itself on the SCEP server. This information is obtained from the local IT department.

NDES
Network Device Enrollment Service is a setup for a separate server that runs SCEP to manage digital network certificates for network equipment. Many implementations of SCEP use NDES. To use NDES, ClickShare requires the SCEP server address, the username and password ClickShare must use to log into the NDES server and a name for ClickShare to identify itself on the SCEP server. This information is obtained from the local IT department.

About LAN settings

The LAN settings show the state of the current LAN connection. When the LAN is connected, most fields will be filled out automatically. When the LAN is disconnected a notice "No link detected" will be shown at the top of the "Primary Interface".

A name can be given to the Base Unit in the input field after "Hostname".

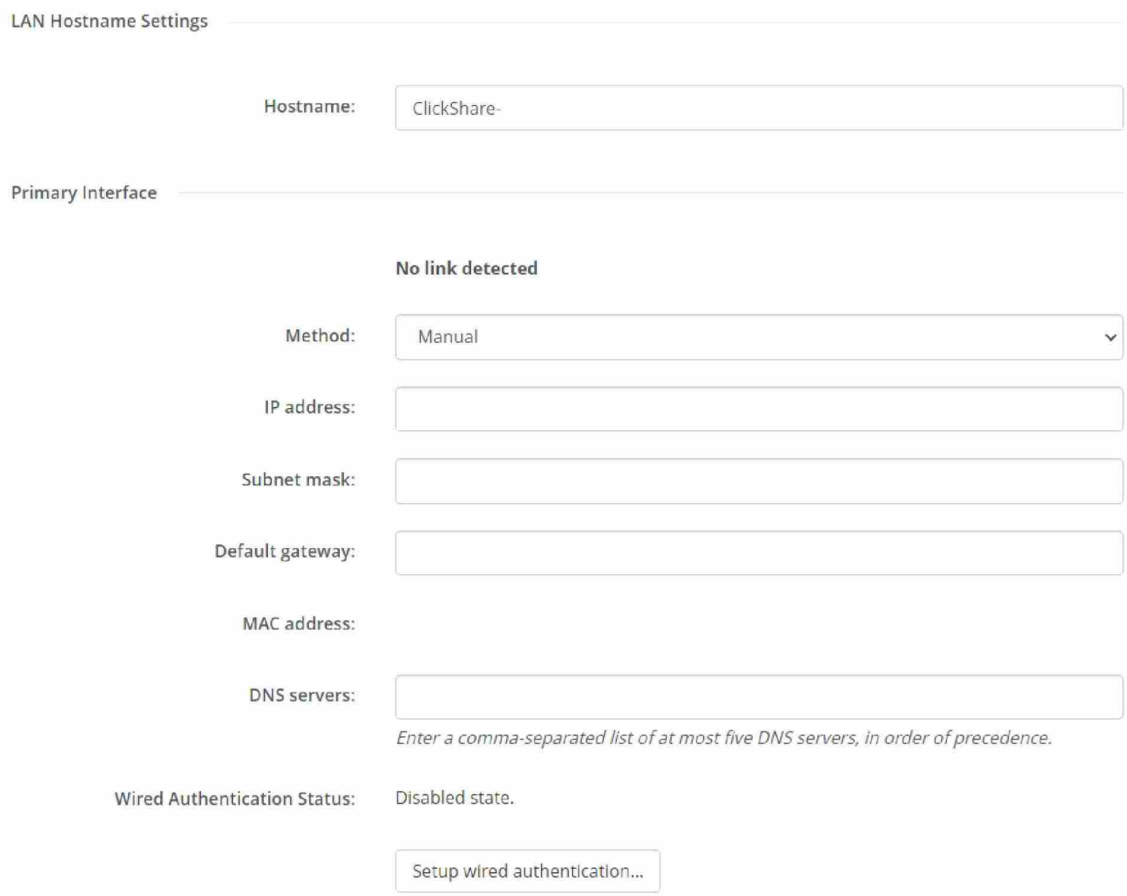

Image 6–28 Example of the LAN settings

How to configure the LAN settings

1. Decide how the Base Unit must acquire its IP address, by selecting an option from the drop-down after "Method".
   - ► **Automatic (DHCP)**, IP configuration will be handled by the network.
   - ► **Manual**, input fields below the "Method" drop-down list will be enabled to allow for manual IP address configuration.

   Note: For more information about how to manually configure the IP address, contact the local IT responsible of the network.

   Tip: A static IP address is preferred. The IP address of the Base Unit is the fallback for Button(s) that cannot find the Base Unit through other methods.

2. Decide whether the wired connection must be authenticated by a log-in server:
   - ► If **no**, go to step 7
   - ► If **yes**, go to next step
3. Click on the button "Setup wired authentication...".

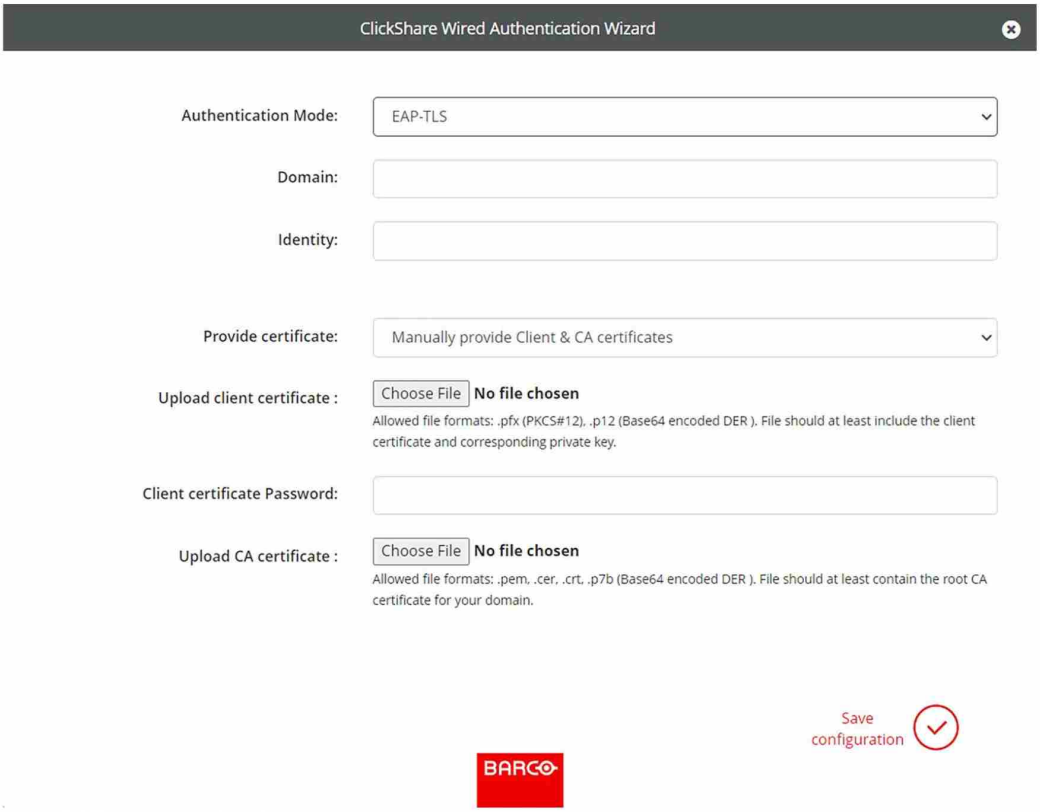

Image 6–29 Example of the wired authentication wizard pop-up

A pop-up of the ClickShare wired authentication wizard will be shown.

4. Select the applicable authentication mode from the drop-down box after “Authentication Mode”.
   - ► **No authentication**.
   - ► **PEAP**, allowing for either the EAP-TLS and EAP-TTLS methods of authentication depending on the setup.
   - ► **EAP-TTLS**, using a log-in server where the server issues certificates to the client via user authentication with password credentials.
   - ► **EAP-TLS**, using a log-in server where both client and server require a certificate. The certificates can be provided to ClickShare by SCEP, NDES or manual upload.

   Tip: SCEP requires the SCEP server address, the SCEP challenge and a name for the Base Unit to identify itself on the SCEP server.
   NDES requires the SCEP server address, the username and password Base Unit must use to log into the NDES server and a name for Base Unit to identify itself on the SCEP server.

   Depending on which authentication was chosen, different input fields and/or drop-down list's will be shown.

5. Fill out the required network detail fields to authenticate the Base Unit as a client of the host network.

   Note: For information about how to fill in these fields or what to select for the drop-down lists, contact the local IT responsible of the network.

6. Click the check mark at the bottom right after “Save configuration” to apply the changes

   The chosen method will be displayed after “Wired Authentication Status”.

7. Decide whether a proxy server will be used:
   - ► If **no**, go to step 9
   - ► If **yes**, check the checkbox in front of “Use a proxy server” and go to next step

8. Fill out the applicable details of the proxy server that must be used in the fields that appeared below the "Use a proxy server" checkbox.

   Note: For more information about how to connect to the proxy server, contact the local IT responsible of the network.

9. Click "Save changes" at the top of the page to commit the changes to the Base Unit!

6.5.3 Services

About services

Services are additional wireless features offered by ClickShare.

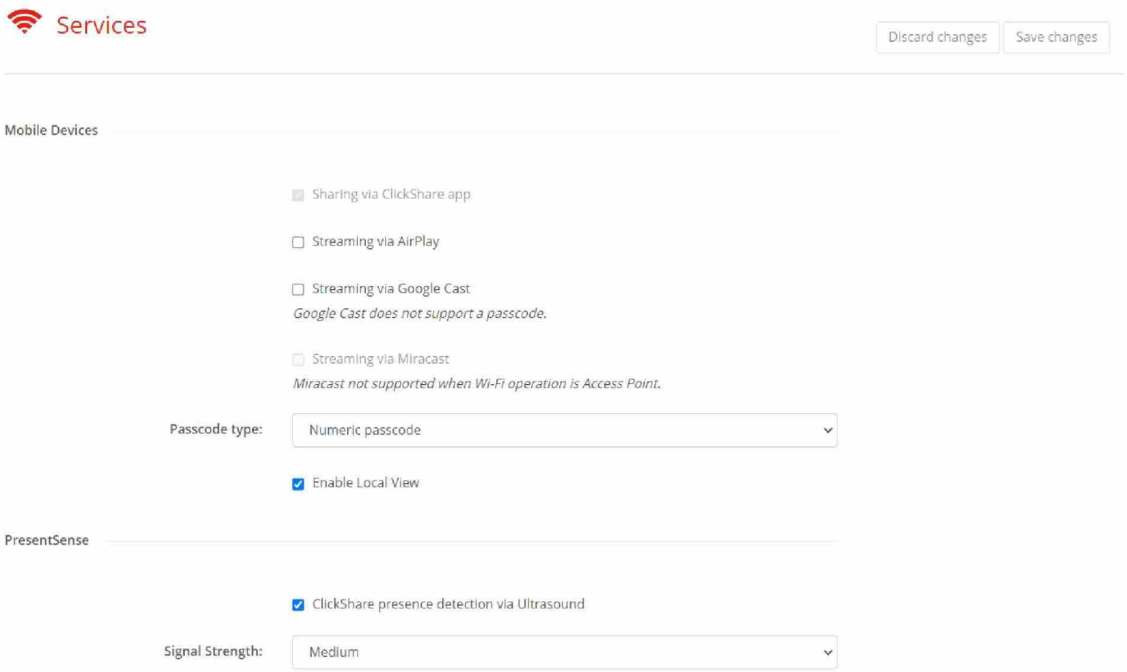

Image 6–30 Example of the services page

6.5.3.1 Mobile devices

About mobile devices

ClickShare supports sharing content from mobile devices through select services on those devices:

- ClickShare app (cannot be disabled)
- AirPlay
- Google Cast (does not support passcode)
- Miracast

These services can be toggled with checkbox in front of the services name.

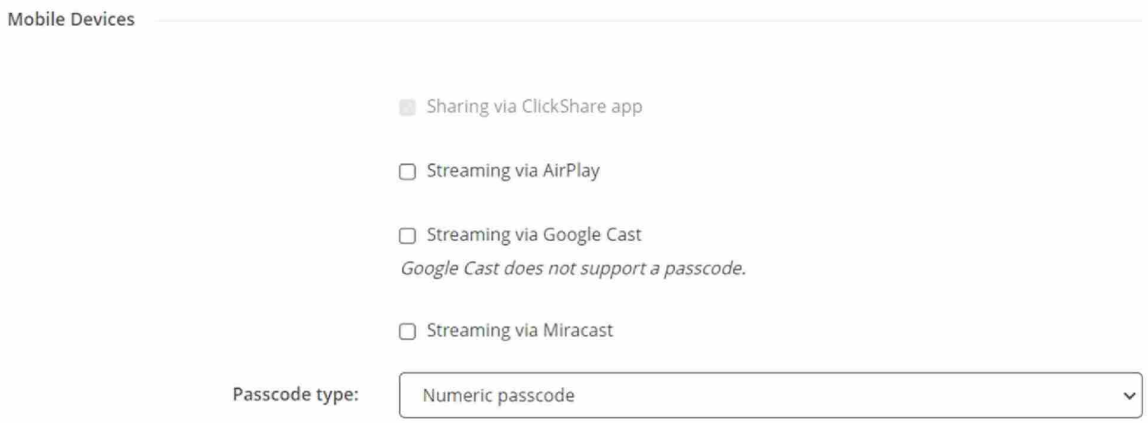

Image 6–31 Example of the mobile devices settings in the services subcategory

Passcode

To ensure the user is connected to the correct Base Unit a passcode can be prompted before sharing is allowed. This passcode is not supported by the Google Cast service!

Select the desired passcode state from the drop-down list after "*Passcode type*":

- No passcode.
- Numeric passcode, **not supported by Google Cast**.

6.5.3.2 Local view

About local view

Allows a maximum of four users connected to the ClickShare to preview the shared screen on their device when enabled.

Image 6–32 Example of the local view checkbox

6.5.3.3 PresentSense

About PresentSense

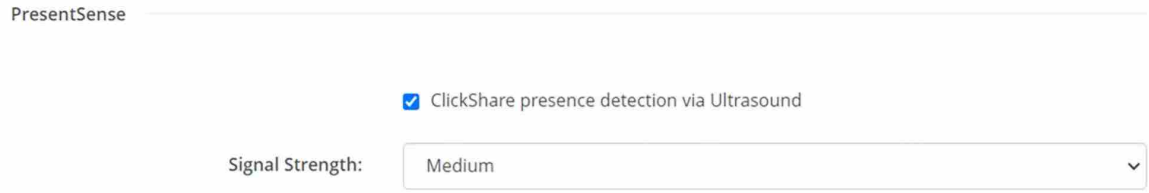

Image 6–33 Example of the PresentSense setting in the services subcategory

PresentSense sends out an ultrasound tone from the Base Unit that can be picked up by computers when they enter in range.

The ultrasound tone cannot be heard by humans!

Adjust the strength of the tone from the drop-down list after "*Signal strength*":

- Low
- Medium

- High

6.5.3.4 REST API

About REST API

To interface with the Base Unit directly through software is made possible by Barco's REST API. Complete documentation of the REST API is present within each Base Unit and can be accessed by clicking on the text "*View API documentation*".

REST API requires the "*remote control via API*" functionality to be allowed in order to interface with the Base Unit.

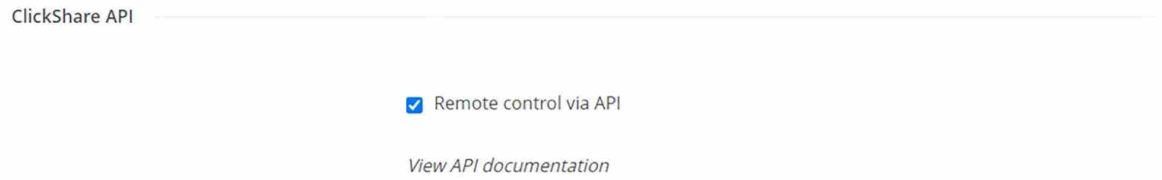

Image 6–34 Example of the REST API setting in the services subcategory

6.5.3.5 SNMP

SNMPv3 is supported.

SNMP
Simple Network Management Protocol (SNMP) is an internet standard protocol for collecting and organizing information about managed devices on IP networks and for modifying that information to change device behaviour. In general an SNMP management suite (running on a server) communicates with an SNMP agent (running on the device). The SNMP agent collects and exposes device information in the form of variables according a MIB (Management Information Base). SNMP management suites will be able to approach ClickShare devices via SNMP protocol for requesting device information.

About SNMP

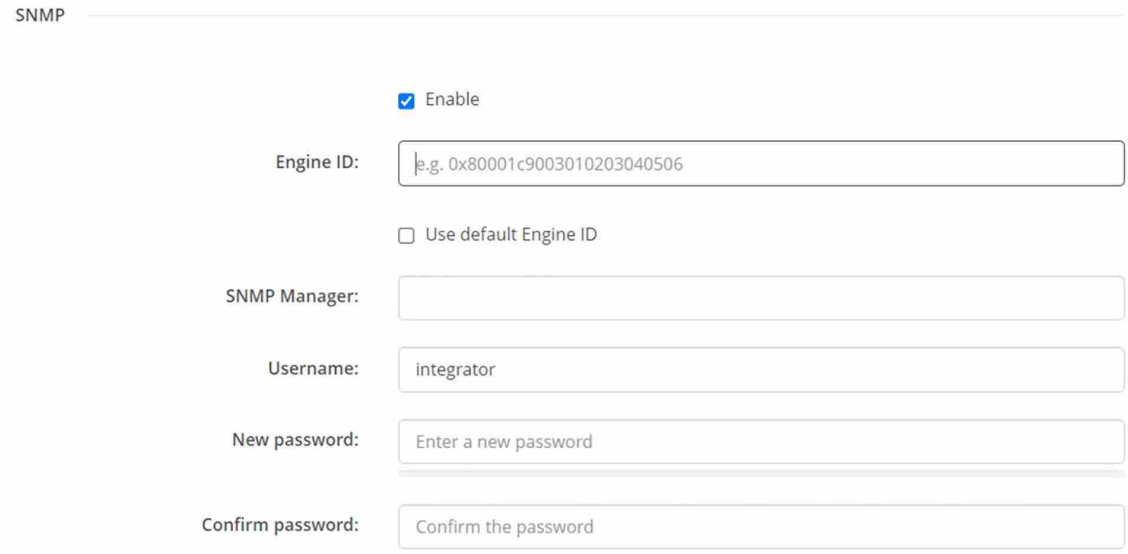

Image 6–35 Example of the SNMP setting in the services subcategory

How to configure SNMP

1. Enable the SNMP feature by checking the checkbox in front of "*Enable*"
2. Decide which engine ID must be used:
   - ► **Default**, check the checkbox in front of "*Use default Engine ID*".
   - ► **Custom**, enter the desired engine ID in the input field after "*Engine ID*" while the checkbox in front of "*Use default Engine ID*" is unchecked.
3. Enter the address of the host that must receive the events/messages, in the input field after "*SNMP manager*".

   Possible TRAP events/messages are:

   - Alarm "**CPU temperature**" trap, which indicates that CPU temperature exceeds the threshold.
   - Alarm "**Case Fan Speed**" trap, which indicates the case fan is spinning too slow.
   - Alarm "**Process Not Running**" trap, which indicates one of the monitored processes is not running.
4. Enter a username in the input field after "*Username*".
5. Enter a password in the input field after "*New password*".

   The strength of the entered password will be reflected in the progress bar below. The color will change depending on how much of the progress bar is filled.

   It is strongly advised to choose a password that colors the progress bar green!
6. Enter the chosen password a second time in the input field after "*Confirm password*".
7. Click "*Save changes*" at the top of the page to commit the changes to the Base Unit!

6.6 Security

About security

View and manage all security settings.

Image 6–36 Example of the security category

6.6.1 Security level

About security levels

There are 3 predefined levels of security possible, with security level 1 being the least strict and security level 3 being the most strict:

- **Level 1**, intended for standard installations. (**default**)
- **Level 2**, intended for installations in security sensitive locations.
- **Level 3**, intended for installations in extremely secure locations where security is a top priority.

Every level of security restricts or removes restrictions from certain features. A higher level of security will **always** include all restrictions of the previous levels.

Refer to the table to see which feature is being restricted by which level. The currently restricted features will have a green confirmation icon.

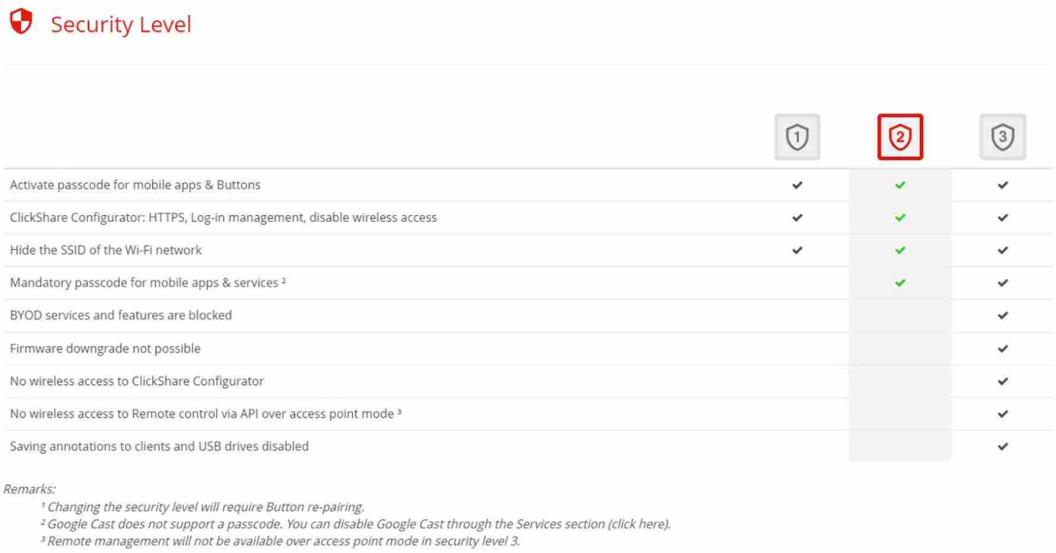

Image 6–37 Example of security level

How to change security level

Click on the number of the security level that must be used. A warning pop-up will be prompted to notify that all Buttons need to be repaired after changing security level. For more information about pairing Buttons, see "Pairing the Button(s)", page 33

6.6.2 Passwords

About passwords

It is recommended to change the default password for the configurator and REST API.

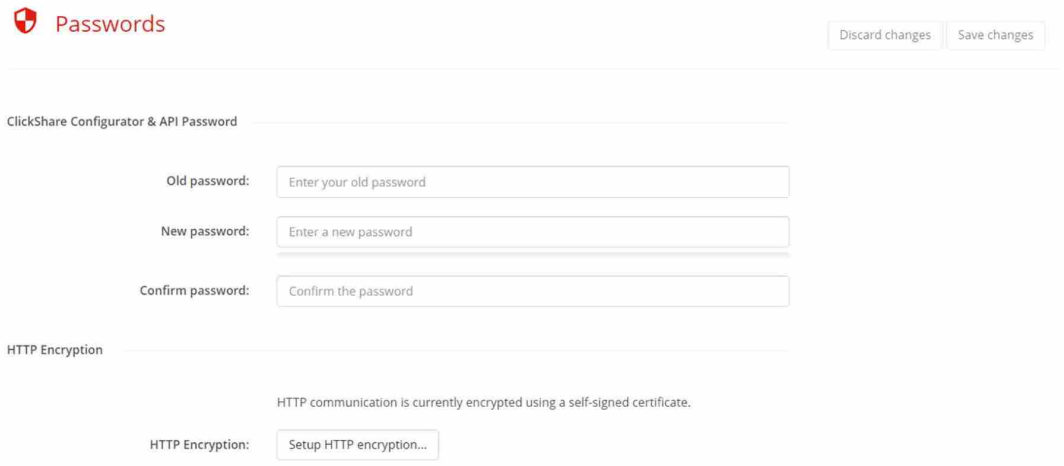

Image 6–38 Example of the password setting

1. Type the current password in the input field after the text "*Old password*".
2. Enter a different password in the input field after "*New password*".

   The strength of the entered password will be reflected in the progress bar below. The color will change depending on how much of the progress bar is filled.

   It is strongly advised to choose a password that colors the progress bar green!
3. Enter the chosen password a second time in the input field after "*Confirm password*".
4. Click "*Save changes*" at the top of the page to commit the changes to the Base Unit!

6.6.3 HTTP encryption

About HTTP encryption

When accessing the configurator via the its IP address, an HTTP site is generated by the Base Unit. ClickShare will generate a certificate which will be checked by the browser to see if they are trusted. The default generated certificate of ClickShare is commonly not trusted by browsers, causing an unsafe site warning to be shown. To remove this warning, the default certificate of ClickShare can be set as trusted in the browser, or overwritten by a custom certificate created by the local IT department.

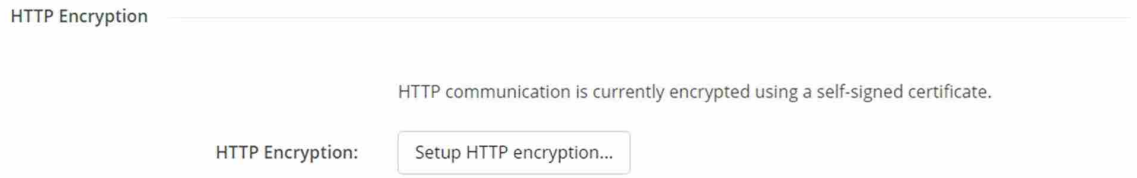

Image 6–39 Example of the HTTP certificate setup button

How to change the certificate

1. Select which certificate type must be used?
   - ► **ClickShare generated**: select "*Use self signed certificate*" and trust the certificate in the browser. For more information about how to trust a root certificate, contact the local IT responsible.
   - ► **Own certificate provided by IT**: select "*Use custom certificate*" and go to next step.
2. Fill out all applicable fields and upload the created certificate.

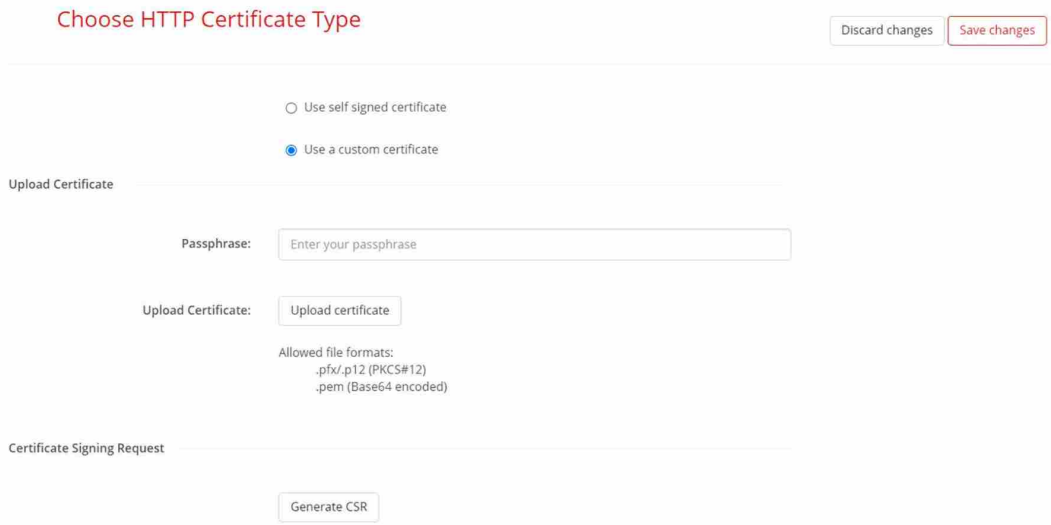

Image 6–40 Example of custom certificate fields

3. To validate the uploaded certificate, click on "*Generate CSR*" and fill out all applicable fields.

6.7 System

About System

View, manage and change the way the ClickShare system works and interacts.

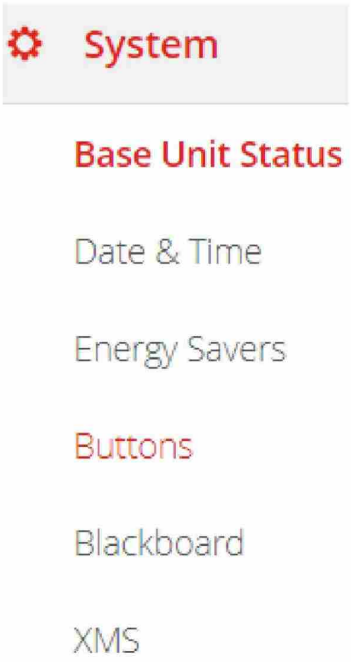

Image 6–41 Example of the system category

6.7.1 Base Unit status

About Base Unit status

An overview listing general information about the current state of Base Unit is given. This information is purely informational and cannot be modified.

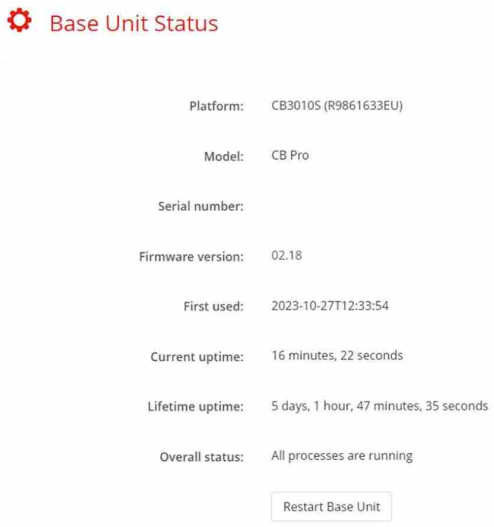

Image 6–42 Example of the Base Unit status

Restarting the Base Unit

1. Click the button "*Restart Base Unit*"

   A software reboot will be triggered

   "*ClickShare System Reboot*" window will appear and the LED ring will start to flicker.
2. Wait until the progress bar has completely reached the end and LED ring is solid white again.

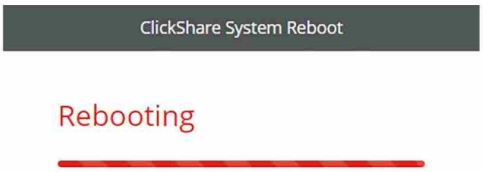

Image 6–43 Example of a completed reboot progress bar

The page will be automatically refreshed. If that is not the case, reconnect with the Base Unit and reload the page.

6.7.2 Date & time

About date & time

ClickShare can keep track of time and dates in multiple different ways depending on the needs and available infrastructure:

- Automatic time zone. (**default**)
- NTP server.
- Manual time.

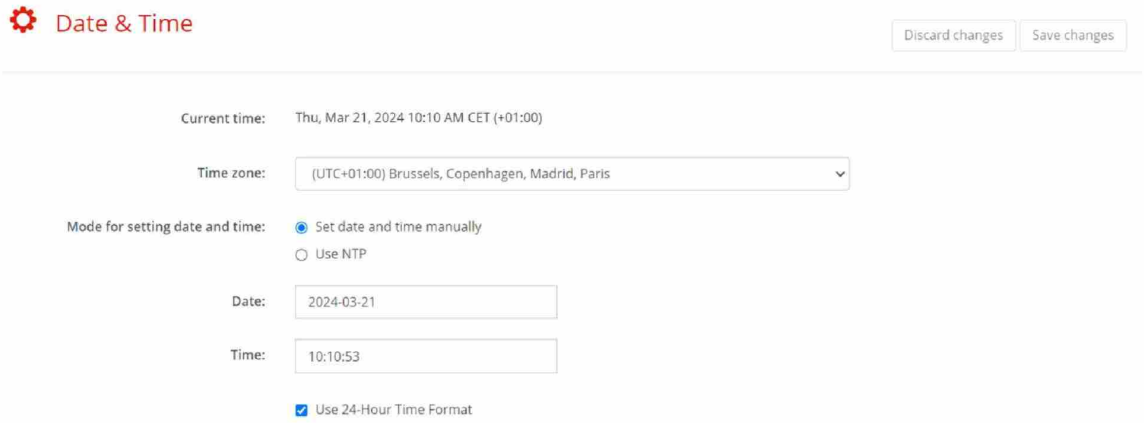

Image 6–44 Example of the date & time page

Time format

The way the time is displayed within ClickShare can be modified by toggling the checkbox in front of “Use 24-Hour Time Format”.

Click the “Save changes” push button, to commit the modifications to the Base Unit.

Time zones

ClickShare will follow the selected time zone changes, such as DST (Day light savings time), automatically and update its clock accordingly. It is highly recommended to choose the local region as time zone.

Select the desired time zone from the drop-down list after “Time zone”.

Click the “Save changes” push button, to commit the modifications to the Base Unit.

NTP

A network time protocol can be used to keep the time and date of the Base Unit in sync with the reference clock of the selected NTP server. It is possible to enter up to **five** NTP servers in the input field after “NTP servers”. Where the first server will be prioritized, while the others serve as a backup.

Click the “Save changes” push button, to commit the modifications to the Base Unit.

Image 6–45 Example of the NTP settings

Manual time adjustment

If no relevant time zone nor NTP server is available, then the date and / or time can be modified manually by typing in the input fields after “Date” or “Time”.

Click the “Save changes” push button, to commit the modifications to the Base Unit.

6.7.3 Energy savers

About energy savers

To save energy the Base Unit can go into a energy savings mode after a certain amount of time (**10 minutes by default**). While the Base Unit is on energy saving its wattage will drop and behavior will change depending on the selected mode. It is possible to select when and how the Base Unit goes into energy saving:

- **ECO mode**, power saving mode, with power usage decreased to 17.99W:
  Multiple ways to wake up the Base Unit:
  - Connecting to the Base Unit
  - Pressing the standby button on the Base Unit
  - Pairing a Button
  - Plugging in an HDMI display
- **Standby mode**, deep sleep mode, with power usage decreased to 3.93W:
  The Base Unit will only wake up when the standby button on the Base Unit is pressed.

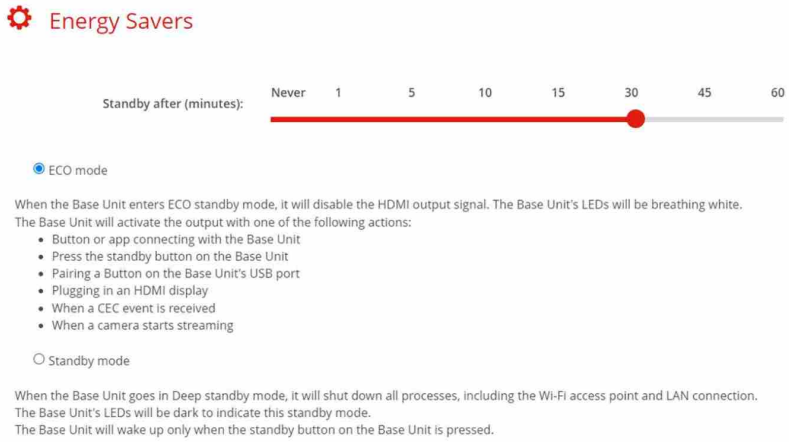

Image 6–46 Example energy savers setting

How to set auto standby

Changes after how many minutes of being idle, that the Base Unit goes into the selected standby mode.

Select the desired time interval by clicking and dragging the red dot after “Standby after (minutes)” over the line until it is close to the desired number of minutes.

6.7.4 Buttons

About Buttons

An overview of all currently paired Buttons and how they are connected is shown.

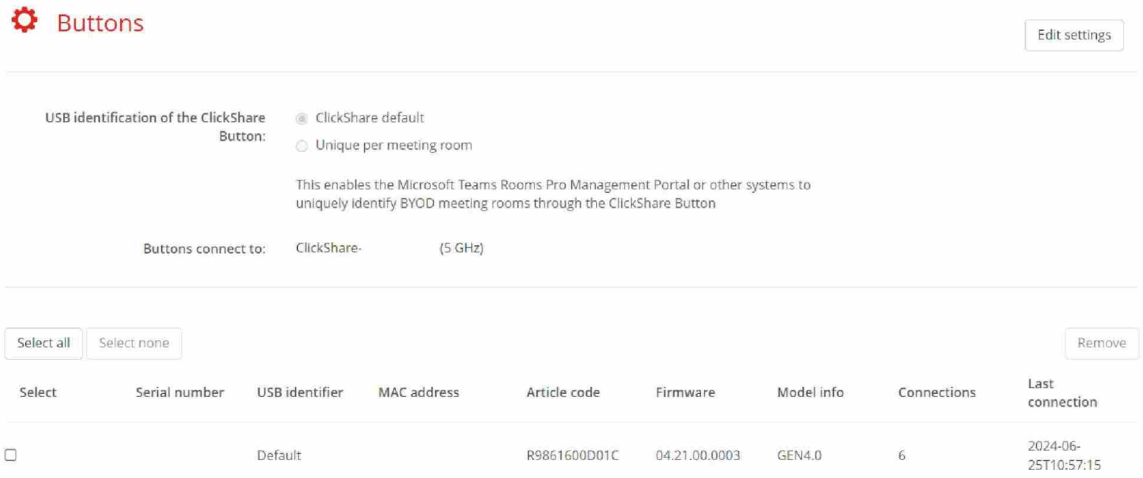

Image 6–47 Example of connected Buttons and connection method

6.7.4.1 Identification

About identification

By default Buttons and Base Units show up as independent devices with their serial number as name. This creates complexity in external logging or management tools. To link the Base Unit to its connected Buttons in these tools the default ClickShare identification must be changed. That way all paired Buttons will show up with the serial number of the Base Unit.

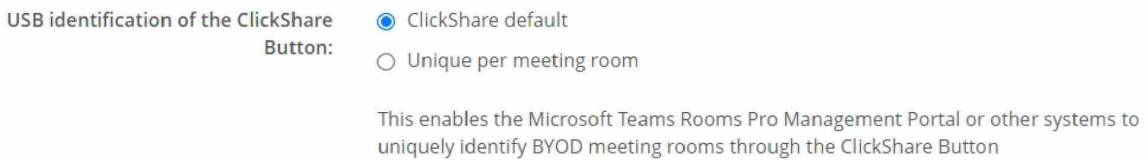

Image 6–48 Example of setting the identification to default

How to change

1. Click the "*Edit settings*" button.
2. How should the ClickShare devices be identified?
   - ► In case of **the same serial number**, click the radio button in front of "*Unique per meeting room*".
   - ► In case of **individual serial numbers**, click the radio button in front of "*ClickShare default*".
3. Click "**Save changes**" at the top of the page to commit the changes to the Base Unit!

6.7.4.2 Connection

About

The Button can be connected to the Base Unit through its own network or via the corporate network.

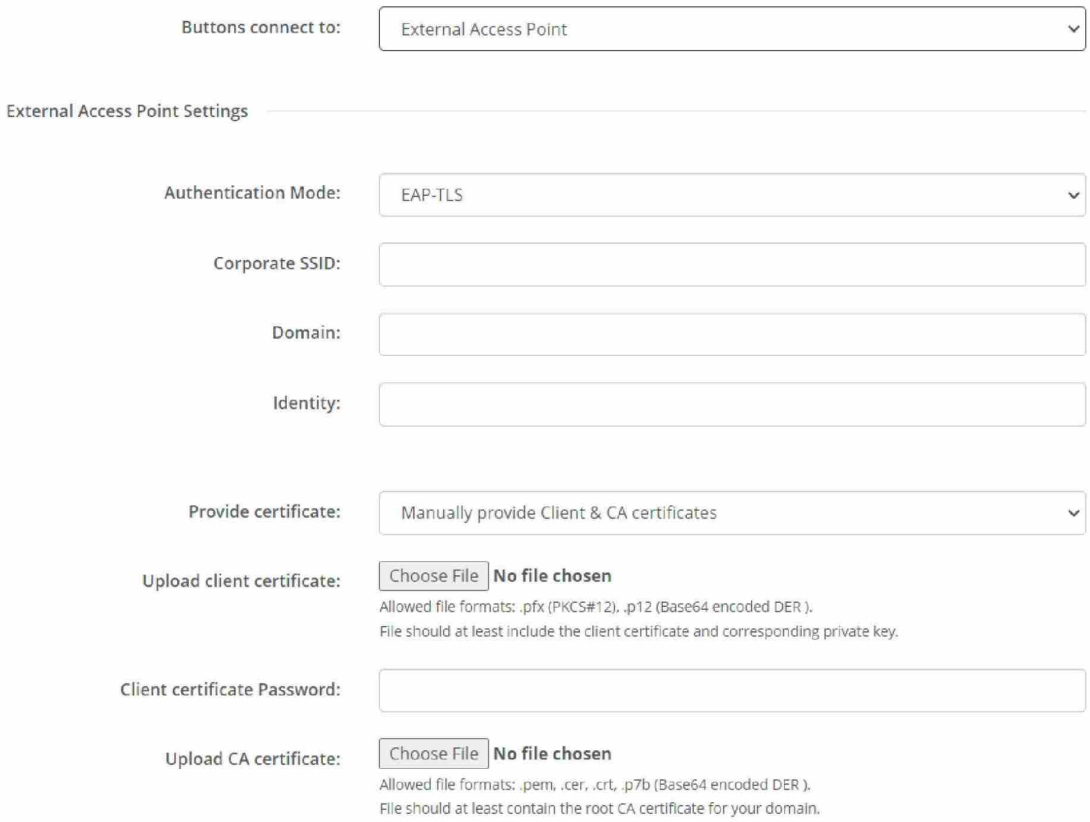

Image 6–49 Example of changing view to external access point in edit

How to change

1. Click on “Edit settings”.
2. Must the Button connect to the a network?
   - If **no**, select the “ClickShare name” from the drop-down list and go to step 4.
   - If **yes**, select the “External Access Point” from the drop-down list and go to next step.
3. Fill out the network configuration in the fields under “External Access Point Settings”.

   Note: For information about how to fill in these fields or what to select for the drop-down lists, contact the local IT responsible of the network.

4. Click “*Save changes*” at the top of the page to commit the changes to the Base Unit!

6.7.4.3 Unpairing

How to unpair

There are two main methods to unpair Button(s):

Unpairing cannot be undone! A removed Button must be repaired to a Base Unit before it will work. For more information, see “Pairing the Button(s)”, page 33

Unpairing one or more Button(s)	Check all checkboxes of the desired Button(s) and click “*Remove*”.
Upairing all Buttons	Click “*Select all*” and click “*Remove*”.

6.7.5 Blackboard

About blackboard

Blackboarding allows for annotations and notes to be made on top of the content that is being shared. These annotations and notes can be saved to the local storage of all Button connected devices and/or a USB stick connected to the Base Unit.

Toggle the checkbox in front of "*Enable*" to (de)activate blackboarding.

Allowing a copy of the annotations to be saved can only be done if the checkbox in front of "*Allow saving annotations to connected clients and USB sticks*" is enabled.

Image 6–50 Example of the blackboard setting

6.7.6 XMS

About XMS

XMS will show the current registration status of the Base Unit. The QR image and the registration link will be available below the current status.

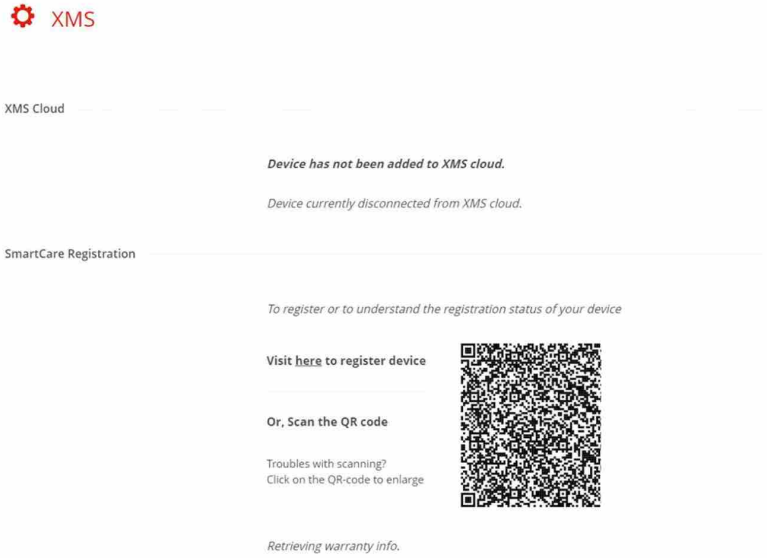

Image 6–51 Example of an unregistered Base Unit

If the Base Unit is not yet connected to XMS Cloud, then the **5 year SmartCare package** will not be active for this device!

A SmartCare package includes:

- 5-year coverage for hardware
- Increased service levels
- XMS for management
- 5-year analytics management

To start the registration process, click on the link or scan the QR code and follow the instructions in "XMS Cloud registration", page 44.

For more information on how to manage Base Unit(s) with XMS Cloud, see the XMS Cloud user guide.

If the QR code is too small to be scanned, then click on the QR code to enlarge it.

6.8 Support & updates

About support & updates

Keep the ClickShare system up-to-date and view basic troubleshooting links and support.

Image 6–52 Example of the support & updates category

6.8.1 Firmware Update

About Firmware update

Manage and review the status of the Base Unit firmware. The Base Unit firmware will also update the firmware of the Button(s) when (re)pairing. It is strongly advised to repair the Button(s) when the Base Unit has been updated! For more information, see "Pairing the Button(s)", page 33

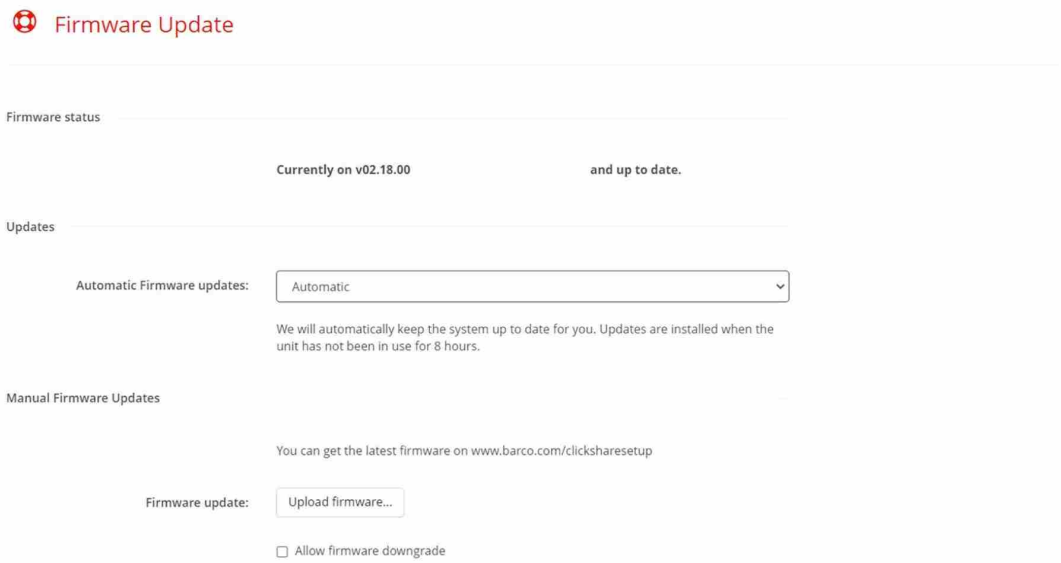

Image 6–53 Example of the firmware updates

How to manage automatic updates

Depending on the local setup different methods of updating the firmware can be preferred. There are 3 methods available:

- **Automatic**, Base Unit will be updated when a new firmware is released after being idle for more than 8 hours.
- **Notify**, a notice when a new firmware is available will be visible, both on the firmware update page and the homepage.
- **Off**, updating the Base Unit and keeping track of when a new firmware is released will be the responsibility of the system manager.

Select the desired method from the drop-down list after "*Automatic Firmware updates*".

Manually up/downgrading firmware

1. Download the desired firmware from the Barco website.
2. Unzip the package and save the "*.enc*" update file in a location that is easily accessible.
3. Is the desired firmware lower than the currently installed firmware?
   - ► **If no**, continue with next step.
   - ► **If yes**, check the checkbox in front of "*Allow firmware downgrade*".

   Note: Only downgrade the firmware if absolutely necessary!
4. Click the push button with the text "*Upload firmware...*".

   The explorer will be opened to navigate to the "*.enc*" file location.
5. Wait for the update to be fully installed.

   The Base Unit will be restarted once the update has been completed.
6. Repair the Button(s) to ensure that they have the correct firmware as well. For more information, see "Pairing the Button(s)", page 33

6.8.2 Troubleshoot

About troubleshoot

If suspected issues arise with the ClickShare device, additional information or basic actions to fix issues can be found here. It is strongly advised to explore the information or actions in this chapter when the ClickShare is not behaving as intended!

There are two main ways that the troubleshoot page could help:

- Providing information:
  - Capturing events in logging

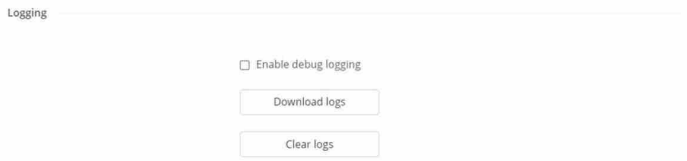

Image 6–54 Example of the logging option

  - Running diagnostics

Image 6–55 Example of the diagnostic option

- Resetting configuration and settings:
  - Erasing all settings (Base Unit will **remain present** in XMS Cloud)

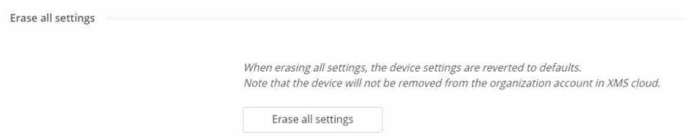

Image 6–56 Example of the erase all settings option

  - Reset to factory defaults settings (Base Unit will be **removed** from XMS Cloud)

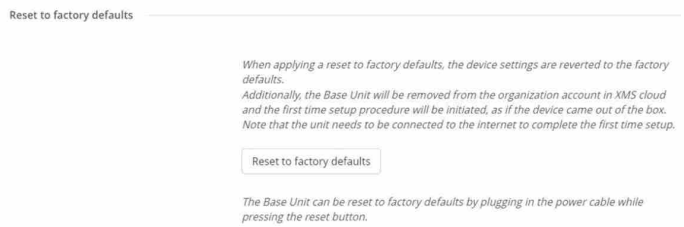

Image 6–57 Example of the reset to factory defaults option

If all else fails, a link and a QR code to contact Barco is present at the bottom.

Image 6–58 Example of the contact information

7 Troubleshooting

7.1 Troubleshooting list

Barco knowledge base and YouTube videos

Go to the product page on Barco's website and select in the right column **Support**. You will get access to Barco's *Knowledge base* (https://www.barco.com/en/support/knowledge-base) and *Latest tutorial videos*. For more YouTube videos, consult https://www.youtube.com/user/barcoTV and select ClickShare.

Problem solving

Problem	Cause	Solution
Quality of the image on the meeting room display is not satisfactory	The quality or length of the cable between the Base Unit and the display or the connection between these two.	• Replace the cable. • Use another cable.
	Bad resolution of the display The system can handle the average laptop resolution of 3 Megapixel. However, up or down scaling on the meeting room display can cause visible artefacts.	Change the resolution on the web interface and match it to the native resolution of the meeting room display.
Users have a bad wireless connection. The connection from the Button to the Base Unit keeps falling away.	Wireless congestion	• Use a WiFi scanner to find a free wireless channel and select it via the web interface. You can use commercial as well as free online tools such as inSSIDer or Xirrus for this. Refer to "WiFi settings".
	Low signal strength	• Put the Base Unit closer to the meeting room table. • Remove or limit as much as possible all obstructions between the Buttons and the Base Unit.
Web interface is not accessible	Browser	• Use another browser (version). • Check the browser settings.
	No connection	• There are three methods to access the web interface. Refer to the corresponding chapter of the documentation. • Check the proxy settings
Users do not get a ClickShare drive when inserting the Button in their laptop.	• No automatic refresh of drives • Windows tries to assign the ClickShare drive to an already reserved drive letter	• Refresh your view on the laptop. • Use Microsoft Windows Disk Management to assign it to a free drive letter.
	Bad connection at USB port on the laptop	• Reconnect to the USB port. • Try another USB port. • Reboot the laptop.
	• Some types of USB devices might be blocked as a company policy. • USB port settings on the laptop might limit the usage of high	If possible, change the USB port policy on the laptop.

Problem	Cause	Solution
	power USB devices when on battery power.	
Low video performance	Laptop performance	• Lower the screen resolution of the laptop. • Disable the hardware acceleration for video. • Use only a part of the display to show the video. • Right click ClickShare icon in system tray and click on Capture mode to toggle the current setting..
	Wireless connectivity	See “Users have bad connectivity”
Video is not shown on screen	Player uses overlays	• Disable the usage of overlays in the preferences of the video player. • video is protected by HDCP and cannot be captured by ClickShare.
Some programs of Windows are not shown on the display	Use of overlays, 3D or hardware acceleration in the GPU	• Disable overlays or hardware acceleration in the GPU. • Disable AeroGlass in Windows 7 • Upgrade the Base Unit to the latest software version.
When using Windows 7 the following message about the Windows Aero color scheme appears: "Windows has detected your computer's performance is slow. This could be because there are not enough resources to run the Windows Aero color scheme. To improve...".	ClickShare uses resources from the GPU. In combination with other programs which do so, Windows 7 sometimes shows this message suggesting to disable Aero to improve the performance of your laptop.	It is safe to ignore this message and choose 'Keep the current color scheme'.
Your screen is not shown on the display when pressing the Button	The number of shared video's on the screen is exceeded.	Click and hold the button for 2 seconds to use the Show me full screen function.
	The ClickShare software is not running.	Go to the ClickShare drive and run the software.
Your content is removed from the display and the LEDs on the button are blinking white	Connection to the Base Unit is lost.	ClickShare tries to restore the connection automatically. If it fails, the LEDs on the Button start blinking red. Unplug the Button from your laptop and try a new Button.
Noting is shown on the displays at all.	The displays are switched off.	Switch on the displays.
	The display cable is not correctly connected	Insert the display cable to the display and the Base Unit.
	The display does not recognize or is not able to display the Base Unit output resolution.	Change the corresponding setting via the web interface.

Problem	Cause	Solution
	The Base Unit is in standby mode	Briefly push the standby button on the Base Unit or insert a Button and run the ClickShare software.
Bad WiFi connectivity	Congestion of the wireless channel	Use wireless network scan tools to look for free or the least congested channels.
	Metal cabinets, walls, construction elements, ... can cause reflections deteriorating the wireless signal. Obstructions between Buttons and Base Unit cause lowering of the wireless strength and quality.	Move the Base Unit to another place in the room. Avoid placing it inside cabinets, false ceiling, below the table, behind a wall, in another room, ...
		Check out the ClickShare White paper on WiFi See https://www.barco.com/clickshare.
Web Interface shows error in the processes “WiFi Access Point Daemon” and/or “DHCP Server”	Configuration file is corrupted	Browse to the Configuration tab on the Web Interface and press “Load Default Settings”.
ClickShare Base Unit does not start up correctly	Configuration file is corrupted	Browse to the Configuration tab of the Web Interface and press “Load Default Settings”.
No LAN connection with the Base Unit	Wrong IP address	IP address is not within your LAN range. DHCP is not enabled.
No WiFi connection with Base Unit	SSID not correct	Enter the correct SSID
Echo when using ClickShare in the call	Wrong micro selection	Select the microphone from the ClickShare system and not the PC microphone during the call.
	The peripheral is not cancelling the echo. As a result the microphone will pick up what the remote participant says and send it back in thecall	Use a correct device with echo cancelling.
	Massive reverb (echo, sound bouncing) in the room itself. This can also be the reason why the remote side can hear the in-room participants as if they sit in a metal can or a fishbowl if they do not sit directly in front of the microphone.	In these situations, the use of table (or ceiling) mics or the use of sound absorbing panels might be advised.

Locate the problem you are experiencing in the table below and apply the solution.

Regulatory A

A.1 Trademark notice

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Glossary

NDES

Network Device Enrollment Service is a setup for a separate server that runs SCEP to manage digital network certificates for network equipment. Many implementations of SCEP use NDES. To use NDES, ClickShare requires the SCEP server address, the username and password ClickShare must use to log into the NDES server and a name for ClickShare to identify itself on the SCEP server. This information is obtained from the local IT department.

SCEP

Simple Certificate Enrollment Protocol is a protocol that simplifies the requesting and issuing of digital network certificates for network equipment. Mainly used in bigger organisations where a large number of network equipment must be managed. To use SCEP, ClickShare requires the SCEP server address, the SCEP challenge and a name for ClickShare to identify itself on the SCEP server. This information is obtained from the local IT department.

SNMP

Simple Network Management Protocol (SNMP) is an internet standard protocol for collecting and organizing information about managed devices on IP networks and for modifying that information to change device behaviour. In general an SNMP management suite (running on a server) communicates with an SNMP agent (running on the device). The SNMP agent collects and exposes device information in the form of variables according a MIB (Management Information Base). SNMP management suites will be able to approach ClickShare devices via SNMP protocol for requesting device information.

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